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UNIVERSITY OF ALBERTA

EFFECTIVENESS OF UNIVERSITY ACADEMIC DEPARTMENTS

BY

BERHANE W. ELFU ©

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA
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ABSTRACT

The study examined the effectiveness of academic departments as perceived by deans, chairpersons, faculty members, and graduate students. A review of the relevant literature, a series of preliminary interviews, and two pilot studies served as bases for the development of the questionnaire used in this investigation. Chairpersons, faculty members, and graduate students rated both the performance of their academic departments on 43 criteria and the importance of those criteria for assessing effectiveness. Deans provided only importance ratings. Questionnaires were distributed to 11 deans, 28 chairpersons, 320 faculty members, and 295 graduate students in 28 academic departments of the 11 departmentalized faculties at the University of Alberta. The response rates for deans, chairpersons, faculty members, and graduate students were 65%, 71%, 63%, and 68% respectively.

The findings indicated that chairpersons, faculty members, and graduate students tended to view their academic departments as generally effective. Overall, chairpersons' assessments were relatively higher than were those of faculty members and graduate students. Academic departments were rated highly by all three constituencies on criteria that dealt with acquisition of competent faculty members, a positive learning climate for students, high research productivity, and high expectations held for students. Lower effectiveness ratings were assigned to involvement of students in departmental leadership.

According to faculty members and graduate students, acquisition of competent faculty members and participative leadership by chairpersons and faculty members emerged as the best predictors and strong correlates of overall effectiveness of academic departments.

Deans, chairpersons, faculty members, and graduate students perceived that acquisition of competent faculty members was the most important criterion for

assessing the effectiveness of academic departments. Other criteria assigned high importance ratings by these four constituencies included a positive learning climate for students, joint planning by chairperson and faculty members to accomplish goals, acquisition of financial resources, and high morale among faculty. Lower ratings on the importance scale were assigned for involvement of students both in departmental decision-making and goal-setting.

Additional criteria submitted by the four constituencies tended to demonstrate the expansiveness and complexity of the effectiveness construct. Members of the four groups also identified financial restraint and related problems as constraints that inhibited the effectiveness of academic departments.

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CHAPTER 1

INTRODUCTION

Achieving effectiveness in their organizations is a primary objective of administrators and practitioners. As a research area, according to Hannan and Freeman (1977), organizational effectiveness "is one of the strongest and most persistent themes in the literature of organizations" (p. 106). It is a basic construct in organizational theory. The assessment of organizational effectiveness by politicians, administrators, and the general public is commonly undertaken for reasons related to resource acquisition, legitimacy, and the survival of the organization.

In the field of higher education, the issue of assessment and achievement of effectiveness is a major concern for organizational leaders, faculty members, students, and the community as a whole. According to Cameron (1987), "few topics in higher education have generated as much attention and controversy recently as the effectiveness of colleges and universities" (p. 323). The search for relevant criteria to assess effectiveness therefore remains a central activity for administrators and researchers in higher education.

One of the early attempts to assess the effectiveness within higher education institutions was carried out by Cameron (1978). In his study, Cameron identified nine dimensions of effectiveness. These dimensions covered criteria that operationalized student and faculty satisfaction, ability to acquire resources, and organizational variables such as flexibility and communication mechanisms. However, a review of the research into the effectiveness of higher education institutions that has been undertaken since Cameron's study indicates more has yet to be done.

There is a major theoretical difficulty with the assessment of effectiveness in higher education institutions. These systems are not unitary but are composed of loosely coupled departments and other units with multiple, ambiguous goals and relatively diverse outputs. As a result, there have been calls by researchers to make the academic departments the focus of effectiveness studies. Examples include, among others, Bare (1980), Goodman, Atkin, and Schoorman (1983), and Conrad and Blackburn (1985). In particular, Goodman et al. (1983) stated that the dimensions identified by Cameron's (1978) study were more appropriate for an academic department within a university rather than the whole university. Similarly, Gilmour (1980) stated that "academic departments ultimately are a better unit of analysis because they are the activities to which institutional resources are allocated and form the basic building block of the operations and management structure at most higher education institutions" (p. 1).

Academic departments have provided the milieu most suitable for the development, preservation, and transmission of knowledge. The literature on university governance supports the view of the department as a community of scholars responsible for instruction and research within a specialized field of knowledge, and thus as the basic administrative unit of the higher education institution. As indicated by Epstein (1960), the work for which the university exists is carried out in principal part through the academic department. Andersen (1977), however, stressed that "no administrative unit within the college or university has been so important, misunderstood, and maligned as the academic department" (p. 35).

If academic department effectiveness is to be improved, there must be further investigation of the criteria of high quality performance. Academic departments provide the setting for the primary purposes of the university. In short, the centrality of the academic department in the operations of modern universities underscores the need to make it a focus of analysis for effectiveness assessments.

Objectives of the Study

The major objective of the study was to investigate the most important criteria used to assess the effectiveness of academic departments within a university by selected strategic constituencies. Specifically, the purposes of the study were (a) to assess the performance of academic departments as perceived by chairpersons, faculty members, and graduate students; (b) to identify the most important criteria for assessing the effectiveness of academic departments as perceived by deans, chairpersons, faculty members, and graduate students; (c) to investigate the similarities and differences in the constituencies' perceptions of the most important effectiveness criteria; (d) to explore possible relationships among the criteria associated with academic department effectiveness; and (e) to identify and compare those factors that constrain the effectiveness of academic departments. These objectives led to the formulation of a number of research questions which appear in the following section.

Research Questions

Chairpersons, faculty members, and graduate students were asked to rate the performance of their departments using 43 specified criteria of academic department effectiveness and also to assign importance ratings for these 43 criteria. Deans were requested to provide importance ratings only. The research questions which guided the study are sub-divided to reflect the order of presentation of the findings of the study.

Chairpersons

1. How do chairpersons rate their academic departments on important aspects of effectiveness?

2. Which criteria are perceived by chairpersons to be the most important for assessing the effectiveness of academic departments?

3. What factors are perceived by chairpersons to constrain the effectiveness of academic departments?

Faculty Members

4. How do faculty members rate their academic departments on important aspects of effectiveness?

5. What criteria are perceived by faculty members to be the most important for assessing the effectiveness of academic departments?

6. What factors are perceived by faculty members to constrain the effectiveness of academic departments?

Graduate Students

7. How do graduate students rate the performance of their academic departments on important aspects of effectiveness?

8. What criteria are perceived by graduate students to be the most important for assessing the effectiveness of academic departments?

9. What factors are perceived by graduate students to constrain the effectiveness of academic departments?

Deans

10. Which criteria are perceived by deans to be the most important for assessing the effectiveness of academic departments?

11. What factors are perceived by deans to constrain the effectiveness of academic departments?

Comparisons of Strategic Constituencies' Perceptions of Effectiveness

12. To what extent are the effectiveness ratings of academic departments assigned by chairpersons, faculty members, and graduate students related?

13. How do the most important criteria of academic department effectiveness vary across the four constituencies?

14. How do the constraints that affect the effectiveness of academic departments vary across the four constituencies?

Significance of the Study

The significance of the study is discussed from the perspectives of theory, research, and practice.

Theoretically, the construct of effectiveness lies at the center of organizational models. Almost all conceptualizations of organizations and subunits have embedded in them notions of the nature of effectiveness or of the differences that exist between effective and ineffective organizations. As noted by Cameron (1987), the construct of effectiveness is assumed to be the ultimate dependent variable in institutional research.

As noted earlier, studies on the effectiveness of academic departments are few. Furthermore, as indicated by Bare (1980) "the lack of a common research paradigm precludes integration of the meager findings reported." (p. 4). In a similar vein, Cameron and Whetten (1983) have alluded to the state of confusion surrounding the literature on organizational effectiveness. A scholarly goal of the study was to contribute to this important area of research.

Practically, the need to assess effectiveness in higher education institutions, in general, and in academic departments, in particular, is important both because it is common and because it is increasingly being mandated. For example, decisions on grants, resource allocation, retrenchment, and rewards are based partly on judgements of effectiveness. The findings from the current study may have direct implications for the practice of administration in higher education institutions. Obviously, the assessments of effectiveness obtained from deans, chairpersons, faculty members, and graduate students have highlighted aspects of academic department operations that may require attention; this may help leaders at the department and faculty levels as well as senior university administrators in their plans to improve the performance of academic departments at the University of Alberta and elsewhere.

In the longer term, identification and better understanding of effectiveness criteria for academic departments should help practitioners to appraise the quality of academic performance more accurately on a continual basis and, thus, to adapt their academic departments for greater effectiveness. Moreover, the instruments developed and refined for use in the current study may contribute to future research. The multi-constituency approach of the current study may also benefit other researchers who intend to explore and extend knowledge of effectiveness at different organizational levels of higher education institutions.

Definitions of Terms

1. Academic department effectiveness. Clearly, effectiveness is a multidimensional construct. It involves many criteria. However, there is lack of broad agreement on the meaning of effectiveness, and on its assessment and attainment (e.g., Cameron & Whetten, 1983; Ratsoy, 1983). For the purposes of the current study, the following definition by Georgopoulos and Tannenbaum (1957), modified for academic departments, was selected for its comprehensiveness: effectiveness is "the extent to which [an academic department], given certain resources and means, fulfils its objectives without incapacitating its members" (pp. 536-537).

2. Strategic constituencies. In order to have a relatively comprehensive set of effectiveness criteria, it is desirable to include the preferences not only of the dominant

coalition (Thompson, 1967), such as administrators, but also to use criteria that reflect the utilities of the strategic constituencies of the organization or department. The following definition of strategic constituencies given by Cameron and Whetten (1983) was adopted for the study:

> Strategic constituencies are individuals or groups who have substantial stake in the organization. These include resource providers, users of the organization's products or services, producers of the organization's output, groups whose cooperation is essential to the organization's survival, or those whose lives are significantly affected by the organization. In general, strategic constituencies have some type of dependency relationship with the organization. (p. 15)

For the purposes of the current study, the selected strategic constituencies of academic departments were deans, chairpersons, faculty members, and graduate students.

3. Academic department. This refers to the unit in a university which is involved in teaching, research, and providing service to the broader community. Such departments are usually administered by a chairperson. The faculty members, support staff, and the students are the other social components of an academic department.

4. Perception. The data used in the study are comprised of perceptual assessments of academic department effectiveness by deans, chairpersons, faculty members, and graduate students. According to Johns (1988), "perception involves interpreting the input from our senses to provide meaning to our environment" (p. 107). This definition, which is similar to a widely used definition by Shaver (1981), was adopted for the present inquiry.

Organization of the Thesis

This chapter has provided an overview of the study. A review of relevant theoretical and research literature is presented in the next chapter. The conceptual framework that guided this investigation is also presented in the second chapter.

Chapter 3 contains a description of the research design, the development of the questionnaire, and the methodology employed in the study. In the concluding section of the chapter, the assumptions, delimitations, and limitations of the study are discussed.

Chapter 4 reports selected organizational, professional and personal attributes relating to chairpersons, faculty members, graduate students and deans who returned the questionnaire.

Chapters 5, 6, 7, and 8 present the research findings regarding academic department effectiveness that resulted from the analysis of data obtained from chairpersons, faculty members, graduate students, and deans.

In Chapter 9, a comparative analysis of the multiple perspectives about effectiveness is presented. Chapter 10, the final chapter, contains a summary of the study, a discussion of the findings, and the implications of the study for practice, for theory, and for research.

CHAPTER 2

REVIEW OF PERTINENT LITERATURE

In the first section of this review, general models of organizational effectiveness are presented. This is followed by a section reviewing the literature on effectiveness that deals specifically with higher education institutions and academic departments effectiveness. A third section pulls together effectiveness criteria used in various organizational effectiveness studies. Then, the conceptual framework which provided the theoretical basis for the study is discussed. Finally, two additional sections—one on perceptions, the other on constraints—are presented.

General Models of Organizational Effectiveness

Effectiveness is both a timeless and a timely issue in organizational research. What constitutes effectiveness, how to identify it, and how to foster it are questions that have concerned researchers and practitioners for a long time. Reviews of the organizational effectiveness literature have usually proceeded by dividing it into goal-based and systems approaches (e.g., Seashore and Yuchtman, 1967; Ghorpade, 1971; Katz & Kahn, 1966; Steers, 1977; Cameron, 1978; Zammuto, 1982). A third approach, the multiple or strategic constituencies approach, has been added to the reviews in recent years (e.g., Connolly, Conlon, and Deutsch, 1980; Keeley, 1984; Cameron, 1986b).

In the goal-based model, an organization is effective to the extent that it accomplishes its stated goals. As noted by Cameron (1986a), this approach is preferred when goals are clear, consensual, time-bound, and measurable. However, the goal-based model has encountered considerable criticism from several researchers in the field (e.g., Miskel, 1982; Seashore, 1983; Cameron & Whetten, 1983).

Miskel (1982, pp. 2-3) listed the following shortcomings of the use of the goal model: (a) organizations usually possess multiple, competing, and unexpressed goals; (b) priority is usually given to the readily identifiable goals of administrators, while goals of other constituencies tend to be overlooked; (c) goals change over time; (d) official goals may be abstract to defy accurate definition and appraisal and, hence, may provide little indication of the reality of organizational objectives; and (e) stated goals may not always direct behavior.

Cameron and Whetten (1983, p. 14) also referred to the ambiguity of organizational goals, especially in higher education institutions. The aforementioned shortcomings led Hoy and Ferguson (1985, p. 119) to regard the goal-based model as insufficient for effectiveness research in educational organizations. However, the model's attention to organizational intents makes it advantageous to include in effectiveness research (Johnson, 1988). Similarly, Seashore (1983), although critical of the goal model, stated that "[it] makes eminently good sense when viewed as a model for describing the purposive forces exerted on the organization" (p. 59). In line with assertions made by several writers (e.g., Cameron & Whetten, 1983; Ratsoy, 1983), Seashore (1983) also added that if an organization is to be judged effective, "goals must be attained to some sufficient degree—particularly those describable as system outputs" (p. 62).

According to the systems approach, an organization is effective to the extent it acquires needed resources and has smooth functioning in its processes. In this model, the need for organizational adaptation, survival and growth in organic environment is acknowledged. Structure and technology are seen as effective only if they have a "fit" with the environment and suit the demands of the organization's strategic constituencies (Perrow, 1967; Mott, 1972; Hoy & Ferguson, 1985). Inputs, processes, outputs, and relationships with the environment are treated as important features of effectiveness in the systems approach. Overall, the model suggests that effectiveness should be described and evaluated with reference to all attributes of the system that have some significant function in its adaptation, maintenance, and transformation processes (Mott, 1972; Seashore, 1983).

Zammuto (1982, pp. 29-30) argued that the goal-based and systems approaches are logical extensions of each other. This view was shared by Seashore (1983, p. 57) who indicated that many variants of the systems approach incorporate the goal model. In these approaches, effectiveness implies the output of goods or services to the environment of qualities and amounts that assure continuing and adequate inputs to the system.

In the third model, the multiple or strategic constituencies approach, an organization is effective to the extent all strategic constituencies are at least minimally satisfied (Connolly et al., 1980). Several writers (e.g., Zammuto, 1982; Cameron & Whetten, 1983; Keeley, 1984) agreed that the strategic constituencies approach to organizational effectiveness represents a departure from earlier work in the area. Moreover, as indicated by Zammuto (1982), "to a degree, multiple [strategic] constituency models represent an integration of the goal-based and systems approach" (p. 30).

The construct of organizational effectiveness is closely associated with conceptualizations of organizations. That is, distinctions between effective and ineffective performance are an inherent part of any view of what an organization is. Variety in conceptualizations, therefore, leads to a variety in models and approaches to organizational effectiveness.

Viewed historically, the theoretical models underlying and guiding the study of organizations have gradually changed. Organizations have been conceptualized as rational entities in pursuit of goals (Perrow, 1967), coalitions of powerful constituencies (Pfeffer & Salancik, 1978), individual need-fulfilling cooperatives (Cummings & Schwab, 1973), information-processing units (Galbraith, 1977), open systems (Thompson, 1967), psychic prisons and brains (Morgan, 1986), machines (Taylor, 1977), and social contracts (Keeley, 1980).

Each of these conceptualizations highlights organizational phenomena that were missed or ignored by others. Research conducted under these different conceptualizations focuses on different phenomena, proposes different relationships among variables, and judges effectiveness differently. The main thrust of this review is not to search for a universal theory of effectiveness. Instead, the necessity of utilizing multiple models which are relevant to the investigation is recognized.

There have been many attempts to define and measure the effectiveness of organizations in the last 25 years. Taylor and Bowers (1972) designed the so-called "Survey Of Organizations (SOO)" which is a diagnostic instrument designed to measure "certain critical dimensions of organizational climate, managerial leadership, peer behavior, group processes, and satisfaction" (p. 1). The survey focussed on the efficacy and operations of groups within organizations. In SOO terms, an effective organization trains and motivates its members to concentrate on building open, participative work groups; and on working to maximize productivity and satisfaction. In practice, the survey has been used as a tool to facilitate organizational self-evaluation and adaptation.

Steers (1975) reviewed 17 organizational effectiveness studies and the 14 evaluative criteria mentioned in two or more cases. Of these, "adaptability/flexibility" was mentioned in over half of the studies reviewed, and "productivity" and "job satisfaction" in about a third. All other criteria were mentioned in less than a quarter of the studies reviewed. These included commitment, strategic goal-setting, and resource acquisition and utilization.

Building on a resource acquisition perspective (Seashore & Yuchtman, 1967), Steers (1977) outlined a process model for analyzing effectiveness. It contained three components which dealt with optimization of goals, a system perspective, and behavioral emphasis. This approach integrated four major influences related to environmental, employee, organizational and managerial policies and practices. According to him, an organization exhibiting a high degree of "fit" or "congruence" among its components is expected to be a relatively more effective organization. Steers concluded that organizational effectiveness is best understood as a continuous process rather than an end-state, and that this process is of a contingent nature.

Lorsch and Morse (1974) also explored such a contingent process from a human resources perspective. They focussed on the relationships between internal characteristics of organizational subunits and the nature of the task performed. They felt that organizational subunit interrelationships are major determinants of both differentiation and integration, and thus of organizational effectiveness. In their opinion, an effective organization would exhibit a high degree of "match" or "congruence" between its internal characteristics (differentiation/integration) and its task and contextual environment.

Campbell (1977, pp. 36-39) reviewed the organizational effectiveness literature and presented a taxonomy of the various criteria he found being used in past studies. These criteria included overall effectiveness, efficiency, quality, motivation, control, flexibility/adaptation, goal consensus, managerial task skills, communication, evaluation, participation and shared influence, achievement emphasis, productivity, job satisfaction, morale, conflict resolution/cohesion, planning, internalization of organizational goals, utilization of environment, stability, value emphasis, and goal setting.

Overall, the criteria summarized by Campbell dealt with processes and outcomes. Input aspects such as acquisition of physical and human resources were not covered in the summary. In Campbell's approach, an organization is deemed effective to the extent its "end" objectives are accomplished subject to certain constraints.

Pennings and Goodman (1977) presented a conceptual framework of organizational effectiveness via the integration of previous theories. They placed particular emphasis on internal forces (such as administrators) and their effects on organizational effectiveness. According to them, "organizations are effective if relevant constituencies can be satisfied and if organizational results approximate or exceed a set of referents for multiple goals" (p. 160).

Miles (1980), commenting on the "organizational effectiveness jungle" (p. 355), sorted all the previous models into two general classifications—goal attainment and systems models—which were discussed earlier in this chapter. Miles also proposed a convergence of the goals and systems approaches, which he called an "Ecology Model," in which effectiveness is defined as "the ability of the organization to minimally satisfy the expectations of its strategic constituencies" (p. 375). He also noted that "using the ecological perspective, organizational assessment is best conceived of not as a 'one-shot' affair, but as an ongoing process" (pp. 379-380). Similar views on effectiveness were expressed by Zammuto (1982).

Van de Ven and Ferry (1980) advanced another view of organizational effectiveness. Their study presented a framework for conducting continuing assessment within complex organizations. The objective was to establish an incremental process of achieving and maintaining successively higher levels of effectiveness. Analyses are conducted at various levels throughout the organization through specific sets of organizational assessment instruments (OAI), each designed to measure "various characteristics of the context, structure, and behavior of the overall organization, work groups and jobs" (p. 4).

In addition to the above-discussed effectiveness models that were mainly based on theory, there are some practitioner-oriented frameworks relevant to this review.

In an influential book entitled *The Functions of the Executive*, Chester Barnard (1938) identified some attributes of effectiveness. He viewed organizations as cooperative systems. Typical effectiveness criteria advanced by Barnard included internal coordination and equilibrium among the different subunits of the organization, and adjustments to external conditions. In his view, which is also shared by many writers (e.g., Steers, 1977; Campbell, 1977), the role of leadership was critical for effective performance in organizations.

Another writer and practitioner who contributed to the literature on effectiveness was Alfred P. Sloan (1963). In a book that summarized his managerial experience with the huge automotive corporation, General Motors, Sloan outlined some perspectives related to organizations and effectiveness. He argued for decentralized and shared decision-making but centralized evaluation.

In a similar vein, Peters and Waterman (1982), in their best-selling book *In Search of Excellence* articulated principles they considered as important for effectiveness. In their "7-S Framework," they highlighted effective performance based on a "fit" among the structure, strategy, staff, systems, skills, style, and shared values that prevail in the organization. Moreover, they remarked that organizations have usually paradoxical characteristics and that excellent organizations are those that "have learned how to manage paradox" (p. 100).

This view was also shared by Cameron (1986a) who indicated that universities and, hence, their academic departments are filled with paradoxes. Some of these paradoxes are that higher education institutions and their departments need both loose and tight coupling, stability and flexibility, there must be specialists and generalists, and they must break out of old patterns while finding strength in their histories. Moreover, Cameron argued that resolving a paradox by minimizing or eliminating one of the simultaneous opposites can weaken rather than strengthen a university or department.

The current study's approach employed a wide variety of criteria that are relevant to the focus of analysis through systematic comparisons of multiple models. As Cameron and Whetten (1983) have noted, "no one approach to effectiveness is inherently superior to another" (p. 3), due to "multiple conceptions of organizations, unbounded construct space, and an absence of consensual criteria" (p. 19). With this in mind, a general framework that covers the major activities of an academic department was constructed by drawing on the major models discussed above. The works of Pennings and Goodman (1977), Miskel (1982), Steers (1977), and Ratsoy (1983) were consulted in the preparation of the framework and identification of the multiple criteria used in the study. The framework is discussed in detail later in this chapter.

Pennings and Goodman (1977) stressed that organizational effectiveness can, and indeed must, be evaluated from the perspectives of the constituents that have some form of interdependency with the focal organization of study. Clearly, the perspectives depend on the constituents' respective value orientations and transactional relationships to the organization, as well as on the limits of their information and analytic resources. This view is also shared by Miskel (1982) who emphasized the need to incorporate the perspectives of multiple constituencies to generate multiple criteria for understanding "the subtle nuances of effectiveness" (p. 2).

In an attempt to integrate the different approaches and provide relatively comprehensive effectiveness criteria, current research is moving toward a multidimensional approach to effectiveness. Steers (1977), for instance, recognized multiple, competing and changing goals as well as system and environmental factors. His so-called "process model" integrated environmental, organizational, individual, and managerial factors as effectiveness variables. Similarly, Ratsoy (1983), in his "frying pan model," presented a relatively comprehensive checklist of effectiveness variables. The model draws upon a variety of approaches and presents effectiveness criteria that include (a) goals, both stated and real; (b) other outcome measures, including satisfaction and adaptability; (c) personnel characteristics, including administrative behavior, decision-making styles, and communication skills; (d) organizational variables, such as structure, technology, and organizational climate; and (e) environmental variables, such as the degree of stability or turbulence in the environment, and the nature of various inputs and outputs.

An important implication drawn from these multiple models is the view that any attempt to assess the effectiveness of an organization, especially a human service organization like an educational institution, would be inadequate if the focus is solely on goals or systems variables. Cameron (1986a) and Ratsoy (1983), among others, emphasized the incompleteness of every effectiveness model and its underlying metaphor. On the other hand, there is also a broad agreement among writers that each model contributes partially to an understanding of organizational effectiveness.

Related Constructs

Several organizational effectiveness writers have used a number of labels interchangably with the term effectiveness. Examples of these related constructs are productivity (Heaton, 1977), efficiency (e.g., Katz & Kahn, 1966; Becker & Neuhauser, 1975; Cameron, 1987), and performance (Cummings & Schwab, 1973; Bare, 1980).

Heaton (1977) considered productivity as an outcome of the input-process-output function as well as the coordination mechanisms of an organization. Obviously, Heaton favored a systems approach for assessing the effectiveness of an organization. A related but somewhat different term is efficiency. In short, efficiency is a ratio of inputs to outputs. There have been many studies designed to derive quantitative "production functions" of various organizational inputs and outputs in an attempt to attain maximum efficiency. Examples include Nord (1983) and Starbuck and Nystrom (1984), in the context of general organizations, and McMahon (1982) who investigated such functions for educational institutions.

Although heavily criticized for their narrow and delimited perspectives, input-output studies remain popular with sociologists and economists. The current thinking on this issue among effectiveness writers is that efficiency is one of the criteria of effectiveness (e.g., Cameron, 1987; Seashore, 1983). In short, efficiency is subsumed by the construct of effectiveness. That is, an organization can be efficient without being highly effective, but it cannot be effective without being at least moderately efficient.

The literature on program evaluation which has been concerned mainly with educational and other human service organizations is also in many ways similar to the literature on organizational effectiveness. As with the multifaceted organizational effectiveness models, evaluation models also incorporate multiple measures of systems criteria in terms of the viewpoints of multiple constituents (Stake, 1967; Ratsoy, 1983; Holdaway, Harris, & Crawford, 1990).

Recently, accountability for the effectiveness or, especially, the ineffectiveness of specific organizations has become the watchword of a variety of constituencies in light of environmental and internal factors such as decreased government funding and changing societal preferences. The objectives of the program reviews that became common in many universities across Canada and the U.S. during the 1970s and 1980s were program improvement and, ultimately, enhancing overall effectiveness (Harris & Holdaway, 1983; Holdaway et al., 1990).

There are two significant observations to be derived from the foregoing review of organizational effectiveness models. First, there is no single and universal model for assessing organizational effectiveness. Multiple models are, therefore, required to undertake a meaningful study of organizational effectiveness. Second, there is broad agreement among effectiveness writers that selecting appropriate criteria of organizational effectiveness is the major challenge facing researchers. Although it is true that a single, best criterion cannot be determined, appropriate effectiveness criteria that are consistent with the viewpoints of selected strategic constituencies can be identified. Similarly, Cameron and Whetten (1983) stated that "in investigating organizational effectiveness, making choices to limit the construct space so as to focus on a limited set of criteria is the only way to come to grips with definitional and assessment problems" (p. 267).

Effectiveness in Higher Education Institutions

Colleges and universities are characterized by a condition of ambiguity regarding what constitutes effective performance. Some of the reasons include an absence of measurable goals, loose coupling, and little direct connection between acquired resources and products. Moreover, higher education institutions have a tradition of resistance to assessments of effectiveness whereas judgements of colleges and universities are made regularly by accreditation agencies, fund-granting agencies, government officials, faculty members and potential students.

Consequently, individualistic impressions or judgement on the basis of questionable criteria are typical of assessments of effectiveness in higher education institutions. And, as noted by Cameron (1986a), "without systematic and rigorous assessments of effectiveness in these organizations, there is little information available about how to improve performance. The effectiveness of a college or university cannot be improved, in other words, if it is not clear what effectiveness *is*" (p. 89). In a similar vein, Bennis (1976) remarked that "one reason, incredibly enough, is that universities—which have studied everything from government to Persian mirrors and the number 7—have never deeply studied [themselves]" (pp. 25-26).

Three of the most influential studies undertaken in the context of colleges and universities were done by Cameron (1978; 1981; 1986a). The first one formed his doctoral dissertation. As noted earlier, in that study (i.e., 1978) he identified nine dimensions of effectiveness that pertained to student satisfaction and development, faculty and administrator satisfaction, system openness, ability to acquire resources, and organizational health.

Cameron re-did the study in 1986. He used the same institutional sample but the scope of the second questionnaire was expanded to include identification of strategies to improve performance in colleges and universities. Besides the identification of the main criteria that may be relevant in the assessment of effectiveness in higher education institutions, in the second study Cameron concluded that "multi-faceted managerial studies are required in order for institutions to be effective" (p. 108).

This finding by Cameron was consistent with the work by Chaffee (1984) who tried to identify the factors that differentiated institutions that successfully recovered from decline from those that continued to decline in the 1970s. Among other things, she concluded that a wide variety of strategies was required in order for institutions to turn-around and begin to enhance their effectiveness. Both Cameron and Chaffee concluded that implementing multiple strategies that are oriented toward a variety of areas such as academics, public relations, student affairs, budgeting and financial affairs, and public service, appears to be the best way to influence a variety of aspects of organizational effectiveness.

In the study carried out in 1980, Cameron used a sample of 41 higher education institutions. Senior administrators and department chairpersons responded to the questionnaire prepared for the study. Because the criteria chosen were unlike those in the 1978 study, the dimensions identified were slightly different. Four major domains of organizational effectiveness in colleges and universities were identified. These were labelled the academic, morale, external adaptation, and extracurricular domains. Among the major institutional characteristics that emerged as predictors of overall effectiveness were domains related to the academic program offered, institutional affluence, and institutional stability.

An implication that can be drawn from this brief review relates to the dearth of research on the effectiveness of colleges and universities. As it will be seen in the next section, this problem is even more acute in regards to academic department effectiveness.

Academic Department Effectiveness

As noted earlier, the condition of ambiguity regarding what constitutes effective performance is characteristic of universities, and their academic departments. Despite these problems, however, some studies have been conducted to identify effectiveness criteria for universities and academic departments.

Webster (1981) identified the six most prevalent methods of evaluating effectiveness in academic departments over the past 20 years. The most prominent is the use of "reputational ratings" by peers or experts. Besides being subject to time lag, and oversimplification, the weakness of this criterion was best illustrated by a study he conducted in 1981. Senior personnel executives in leading organizations were asked to rate the 12 best undergraduate business programs in the U.S. Harvard, Stanford, Columbia, Chicago, and Northwestern all were rated as among the 12 best, even though none of these schools has an undergraduate program.

Another prevalent criterion of effectiveness is citation counts of faculty members in institutions and academic departments. However, this criterion is not only subject to the problem of the inability to assess quality of articles published, but also an important weakness was illustrated in a study by Cox and Catt (1977) that rated psychology departments on the basis of numbers of articles published.

Harvard's psychology department—including B. Skinner, Roger Brown, Jerome Kagan and Richard Herrnstein—was rated 28th best. Most knowledgeable psychologists questioned the validity of such an assessment.

The other four most prevalent criteria to rate academic department effectiveness include faculty awards and honors, student achievement after graduation, student scores, and institutional resources such as library size and expenditures per student.

A comprehensive study to identify the effectiveness criteria for higher education institutions was undertaken by Cameron (1978, p. 92). He identified these nine dimensions of effectiveness for institutions of higher education taken as a whole: (a) student educational satisfaction; (b) student academic development; (c) student career development; (d) student personal development; (e) faculty members and administrators' job satisfaction; (f) professional development and quality of the faculty; (g) system openness and community interaction; (h) ability to acquire resources; and (i) organizational health which was defined by Cameron as "the extent to which the internal processes and practices in the institution are smooth functioning and benevolent." However, in a critique of Cameron's study by Goodman, Atkin, and Schoorman (1982), themselves influential researchers on organizational effectiveness, the three researchers argued that the dimensions identified by Cameron were applicable to academic departments within the university rather than to the whole university. They stressed that aggregation across different loosely coupled academic and administrative units may not be an appropriate level of analysis and called for effectiveness research that focuses on the academic department as the unit of analysis.

In a study by Bare (1980), a systems model for assessing academic department effectiveness was used. An empirical test of the model was carried out in 20 academic departments. He reported that the composite satisfaction of chairpersons, faculty members, and students was a significant indicator of academic department effectiveness. Multiple measures were used to assess faculty satisfaction. These were satisfaction with departmental research, job satisfaction, and satisfaction with personal and professional development. Similarly, the multiple measures of student satisfaction were satisfaction with program content, learning processes, faculty relationships, and academic advising. Moreover, the study revealed that chairpersons' satisfaction was correlated with faculty satisfaction with department research, and faculty satisfaction was a strong correlate of individual performance evaluation and feedback. As might be expected, student satisfaction was negatively correlated with faculty workload.

Bare's (1980) study was notable for two reasons. It captured the multidimensional character of the construct of effectiveness. The research, which was conducted in a public urban college of arts and science, investigated the perceptions of chairpersons, faculty members, and senior students on a variety of criteria related to effectiveness of academic departments. Second, the study suggested a relatively comprehensive framework for assessing academic department effectiveness. The model, referred to as "partial systems model," included a set of input, process, and outcome variables of academic department performance.

In an earlier study, Dressel et al. (1970) reported that faculty members' scholarly productivity was an important indicator of academic department effectiveness. Their study also indicated that faculty publication rates correlated positively with several variables that include department grant income and number of PhDs graduated, and negatively with the number of undergraduate degrees granted. The study also confirmed an earlier finding by Menzel (1962) which indicated that scholarly productivity was related to collegiality and informal information flow in academic departments. Pelz and Andrews (1966) reported a similar association between informal relationships and scholarly productivity.

A study by Conrad and Blackburn (1985) included 45 academic departments from 14 universities. They reported that academic department effectiveness was strongly correlated with faculty scholarly productivity, teaching workload, program (proportion of degree programs at advanced graduate level), and facilities such as libraries, laboratories, and information systems (for example, extensiveness of computer networks and amount of usage).

Although studies that have been undertaken so far have provided some insights in identifying relevant criteria of academic department effectiveness, more needs to be done. For example, the investigation of how effectiveness criteria vary across academic departments centered on different disciplines has not been fully undertaken yet. According to Bare (1980, p. 4), the only major study that dealt with the aforementioned issue was done by Biglan (1973). Put simply, Biglan argued that practitioners in each academic department employed a unique paradigm in the pursuit of their work, and that the imprint of this mode of thinking and doing influences both the task and socio-emotional processes found within a given type of department.

Another issue that requires further investigation is the variation in strategic constituencies' perceptions of effectiveness criteria for academic departments. With the exception of Bare's study, all the studies of higher education institution and academic department effectiveness have included only members of the dominant coalition—that is, administrators at different levels of the organization—in their sample. By including the perceptions of deans, chairpersons, faculty members, and graduate students, the current study provides an analysis of the differences and similarities in constituencies' perspectives regarding the most important criteria upon which assessment of academic department effectiveness should be based.

Effectiveness Criteria

Scott (1987), Steers (1977), and Cameron and Whetten (1983), among others, considered the multi-dimensional approach as having advantages such as providing a comprehensive variety of criteria for assessing organizational effectiveness. Summarizing the view of several organizational effectiveness writers, Cameron (1987) stated that "the pursuit of effectiveness is not a pursuit of the one right answer or the single best criterion. It is, instead, the pursuit of a wide variety of criteria, that serve to guide the judgements of multiple evaluators" (p. 326).

A widely used method of eliciting effectiveness criteria is to ask the strategic constituencies of an organization or subunit to specify the characteristics they perceive to be important for assessing effectiveness. Despite the limitation that may result from some inaccurate perceptions of respondents, this method has been used to study the effectiveness of a variety of organizations including schools and higher education institutions.

Due to the earlier mentioned limitations of each effectiveness model and the particularly narrow focus of most of the studies of academic department effectiveness, the approach taken in the current study was to identify and examine possible organizational effectiveness criteria in the context of an expansive conceptual framework. Because of its relative comprehensiveness and taxonomic arrangement, Ratsoy's (1983) "frying pan model" was selected as a basis for the examination of effectiveness criteria.

Goals. Many writers on organization effectiveness (e.g., Cameron & Whetten, 1983; Scott, 1987) indicated that organizational goals and related outcomes form a significant portion of the set of effectiveness criteria in human service and other organizations. Defined by Steers (1977) as the "desired state of affairs that organizations attempt to realize" (p. 5), organizational goals provide members with a purpose and focus for work and professional development, a reference point with which to identify, and feelings of accomplishment when achieved.

Clearly, the inevitability of differing goals of various constituencies in the assessment of effectiveness must be recognized. In academic departments, for example, faculty members may desire satisfaction with individual research activities, chairpersons may seek proper coordination, and students may prize quality teaching and employment opportunities. Indeed, as noted by Cameron and Whetten (1983), effectiveness depends partly upon the degree to which an organization manages paradoxical and conflicting goals.

Other outcomes. Several writers (e.g., Bare, 1980; Ratsoy, 1983; Cameron, 1978; 1986a) distinguished goals from other outcomes such as satisfaction and adaptability. According to Johns (1988), job satisfaction refers to "a collection of attitudes which employees have about their jobs." (p.127) At least two aspects of satisfaction can be differentiated. The first is facet satisfaction which is defined as the tendency for an employee to be more or less satisfied with various facets of the job. Locke (1976), in an influential study on job satisfaction, suggested that the most relevant attitudes toward jobs are contained in a rather small group of facets that include pay, promotion, recognition, supervision, co-workers' attitude, and organizational policy.

Besides facet satisfaction, a total or summary indicator of an employee's attitude toward his or her job that cuts across the various facets is referred to as overall satisfaction. Holdaway (1978) regarded job satisfaction as an "organizational outcome" as well as a "determinant" of performance. Bare (1980) took a similar view. For example, among the effectiveness criteria listed under "faculty outcomes," he included "satisfaction with departmental research, and satisfaction with personal and professional development" (p. 6).

Another organizational outcome frequently mentioned in the effectiveness literature is adaptability. The literature on organizational change and strategic planning has highlighted the powerful impact of the environment on organizational structure, technology, and personnel (e.g., Aldrich, 1979; Perrow, 1967; Seashore & Yuchtman, 1967). In the words of Ratsoy (1983), "what goes on in the organization is a function of what goes on outside. The reverse is also true" (p. 4). It is not surprising, therefore, that one of the hallmarks of successful organizations is adaptability—the capacity to anticipate and respond to environmental change. Similarly, "adaptiveness to environment" was one of the significant criteria that was identified in Cameron's (1978, p. 60) study under the general classification of "system openness and community interaction."

With regard to academic departments, there are many outcomes which have been identified in the literature as potential effectiveness criteria. In addition to adaptability these include student satisfaction with the learning process, faculty relationship and academic advising (Bare, 1980); faculty reputation; honors and awards received by faculty members (Cameron, 1978; 1986a); success record of graduates (Bare, 1980; Cameron, 1978); and research productivity (Cameron, 1986a; Bare, 1980; Dressel, Johnson, and Marcus, 1970).

Personnel characteristics. The work behavior of organizational members, especially in human service organizations like universities is a critical dimension in the study of effectiveness. For example, many studies have shown the relationship between faculty collegiality and outcomes such as research productivity and satisfaction. Starting with Menzel's (1962) work, a series of other studies (e.g., Pelz & Andrews, 1966) have established the link between article and report production on the one hand, and informal communication and collegiality on the other.

Moreover, supportive faculty-student relations, high expectations held for students, and collaborative problem-solving are faculty member and student characteristics that have been studied as potential effectiveness criteria (e.g., Conrad & Blackburn, 1985; Bare, 1980).

In Ratsoy's (1983) model, personnel characteristics also include administrative behavior. Lawrence (1972, p. 50) contended that the various elements of the management process in universities as a whole and academic departments can be grouped in four logical concentrations of activities; these are goal-setting, program planning, decision-making, and evaluation.

Goal-setting refers to the activity in which administration and the appropriate constituencies determine the broad purposes of the organization. Lippitt (1982, pp. 65-67) identified the following important sources for setting and prioritizing goals: these are (1) those being served by the organization; (2) the leadership of the organization; and (3) the organizational members, especially those who are involved in the "primary business" of the organization.

Studies by Lippitt (1982) indicated that the clearer the goals the stronger the motivation to accomplish these goals. Organizational members were able to focus more energy toward the accomplishment of goals when they are clear. As a result, clarity of goals has been included as a potential criterion in effectiveness research (Lawrence, 1972).

Another integral process in the activities of an organization is planning. Usually defined as the description of what an organization wants to accomplish and the means for achieving its objectives, planning includes data collection, appropriate involvement by organizational members, consequence assessment, and feedback mechanisms. In educational institutions, planning is not considered as an exclusive management function. This view is primarily held by faculty members who perceive planning as an opportunity for program enrichment and expansion, introduction of new courses, and other curricular offerings. Evaluation is also another critical aspect of planning for it determines action, and thereby directs, limits, and motivates behavior and performance.

Studies (e.g., Steers, 1977; Bare, 1980) have shown that much of the responsibility for eliciting organizational members' commitment and effective performance seems to rest with an organization's leaders. For academic departments, the chairperson is entrusted with the primary responsibility to direct and coordinate departmental activities. However, and as noted by Brown (1977), it is also generally accepted that "an academic department is a body of colleagues in which leadership is shared" (p. 194). Similarly, after an extensive study on different leadership styles and approaches of chairpersons, McKeachie (1972) concluded that "a department is likely to be more effective if there is widespread participation in decision-making" (p. 50).

In an influential study, Steers (1977) developed some useful categories of effective administrative behavior which may have relevance to the leadership within the academic department. These are ensuring clear specification of goals, coordinating activities and resources to achieve goals, motivating high performance, fostering open communication, resolving organizational conflict, promoting satisfaction of organizational members, and promoting adaptation and innovation. Similarly, and specifically for academic departments, Tucker (1981, p. 49) identified the following three essential characteristics of effective leadership within the department; providing informal leadership of faculty members, maintaining faculty morale, and encouraging faculty members' professional development.

Organizational variables. Corson (1960) was among the first writers on higher education to identify the administration of universities and their subunits as presenting "a unique dualism in organizational structure" (p. 46). He saw the university and its subunits as including two structures existing in parallel; these are the conventional administrative hierarchy and the structure through which faculty make decisions regarding those aspects of the institution over which they have jurisdiction.

In general, organizational structure, which is usually manifested through variables such as decentralization, specialization, and organization size, is a critical variable in assessing effectiveness (Ratsoy, 1983; Hall, 1982). In higher education institutions, increased faculty specialization has fostered decentralization of decision-making. As faculty members become more specialized, they utilize their expertise as a requirement for designing curriculum and assessing the qualifications of colleagues (Birnbaum, 1988, p. 17). As a result, departments are the locus of decision-making in many aspects that pertain to academic and professional activities.

Generally, the expectation of participation as an element of shared authority, and the autonomous focus of a professional authority make a highly bureaucratic structure unsuitable for academic departments (Mintzberg, 1979; Birnbaum, 1988; Steers, 1977).

Besides structure, another variable which is included in organizational analysis is technology. Birnbaum (1988) defined technology as "the characteristic processes through which organizations convert inputs to outputs" (p. 155). Some of the technologies used in the context of academic departments include lecture sessions, laboratory sessions, seminars, and independent study. Perrow (1967) and Scott (1987), among others, indicated that technology and structure are interactive and structure should be adapted to fit the prevailing technology.

Although not specifically mentioned in Ratsoy's (1983) model, another significant organizational variable long established in organization theory is culture. Smircich (1983) described organizational culture as

> the social or normative glue that holds an organization together. It expresses the values or social ideals and the beliefs that organizational members come to share. These values or patterns of belief are manifested by symbolic devices such as myths, rituals, stories, legends, and specialized language. (p. 344)

Similarly, and perhaps more clearly, Masland (1985) stated that "culture induces purpose and commitment; provides meaning and social cohesion; and clarifies and explains behavioral expectations" (p. 158). All organizations have a culture. However, as noted by Birnbaum (1988), the culture can be strong or weak, and it can inhibit, as well as facilitate, institutional development and effectiveness. According to Clark (1983), academic disciplines have varying cultures that are based on differences in their research techniques and methodologies, common vocabularies, membership in learned societies, codes of ethics, and similar substantive and symbolic perspectives.

With respect to higher education institutions, an important component of culture is collegiality. Ladd and Lipset (1975) and Birnbaum (1988) contended that collegiality is maintained where regular face-to-face contact provides the necessary coordinating mechanisms and where programs and traditions are integrated enough to permit the development of a coherent culture.

A related concept that requires consideration is organizational climate. According to Steers (1977), culture is concerned with the understandings of a group whereas climate is a measure of an individual's perception of factors within an organization. Some of the dimensions usually used to determine organizational climate include conflict resolution, encouragement of individual initiative, goal clarity and emphasis, compensation, and human resource development (Hoy & Ferguson, 1985; Hellriegel & Slocum, 1975). With regards to academic departments, student satisfaction, for example, has been linked to supportive faculty-student relations (Gregg, 1972, p. 497) and positive learning climate (Bowen & Kilman, 1975, p. 76).

Environmental variables. Understanding the environment is critical for organizational effectiveness, because organizations have vital, continuing and mutual transactions with elements outside their boundaries. Some of the environmental factors that higher education institutions and their subunits have to cope with include changes in financial and enrollment conditions, general societal values, political and legal constraints, and changes in information and technical processes (Birnbaum, 1988; Katz & Kahn, 1978).

Two major aspects of environmental influences, uncertainty and scarcity of critical resources, and their impact on the adaptation process of organizations, have been a focus of study by organization theorists including Lawrence and Lorsch (1967), and Tushman and Romanelli (1985). The impact of the environment on an organization can be analyzed along two dimensions; these are the extent to which external conditions are simple or complex, and the extent to which they are stable or unstable (Daft, 1986).

As noted by Jurkovich (1974), environmental complexity refers to heterogeneity, or the number of external elements that are relevant to an organization's options. In a complex environment, a large number of diverse external elements may interact with and influence the organization. In simple environments, the elements tend to be fewer. The stable-unstable dimension refers to whether elements in the environment are dynamic. An environmental domain is stable if it remains fairly the same over a period of time. Under unstable conditions, however, environmental elements change unexpectedly and surprise the organization (Morgan, 1986; Pfeffer & Salancik, 1978; Jurkovich, 1974).

In general terms, universities are in complex but stable environmental settings (Daft, 1986). A large number of external elements such as research fund granting agencies interact with them, and so do a variety of professional and scientific associations, schools, other institutions of higher education and corporations.

The adaptation perspective has become the dominant approach to the analysis of the effects of the environment on an organization. Tushman and Romanelli (1985) defined adaptation as a general term for the process of accommodation between an organization and its environment which is marked by a period of gradual and incremental change.

In higher education institutions, organizational leaders devote considerable effort to developing and implementing strategies to cope with environmental uncertainty and resource scarcity. As noted by Bare (1980), the same is also true for the leadership within the academic department.

Conceptual Framework

Based on the review of the literature on organizational effectiveness, a summarized version of a framework for assessing an academic department's effectiveness is presented below.

Seashore (1983) explained that the term effectiveness is evaluative by definition and implies that some coherent set of interests and value preferences is brought to bear. As a result, the orientation taken in the current study is to investigate a range of potential criteria using a multiple-constituency view of effectiveness. There is a theoretical as well as a practical rationale for the chosen perspective. As pointed out by Scott (1977), effectiveness criteria chosen in most studies have been biased because they did not include the perceptions of effectiveness of an organization's strategic constituencies.

As noted earlier, the main activities of an academic department are teaching, research, and providing service to the community. The inputs, processes, and outputs of its activities are linked, directly or indirectly, to its strategic constituencies. Although each strategic constituency may have clear standards of effectiveness for the department, the collective set of standards may not be compatible. Nonetheless, the effectiveness criteria proposed and used by the main strategic constituencies can provide the department's leadership with a basis for improved decision-making.

The conceptual framework or model is shown in Figure 2.1. Following Ratsoy (1983), as noted earlier, five effectiveness domains which are "interactive in a

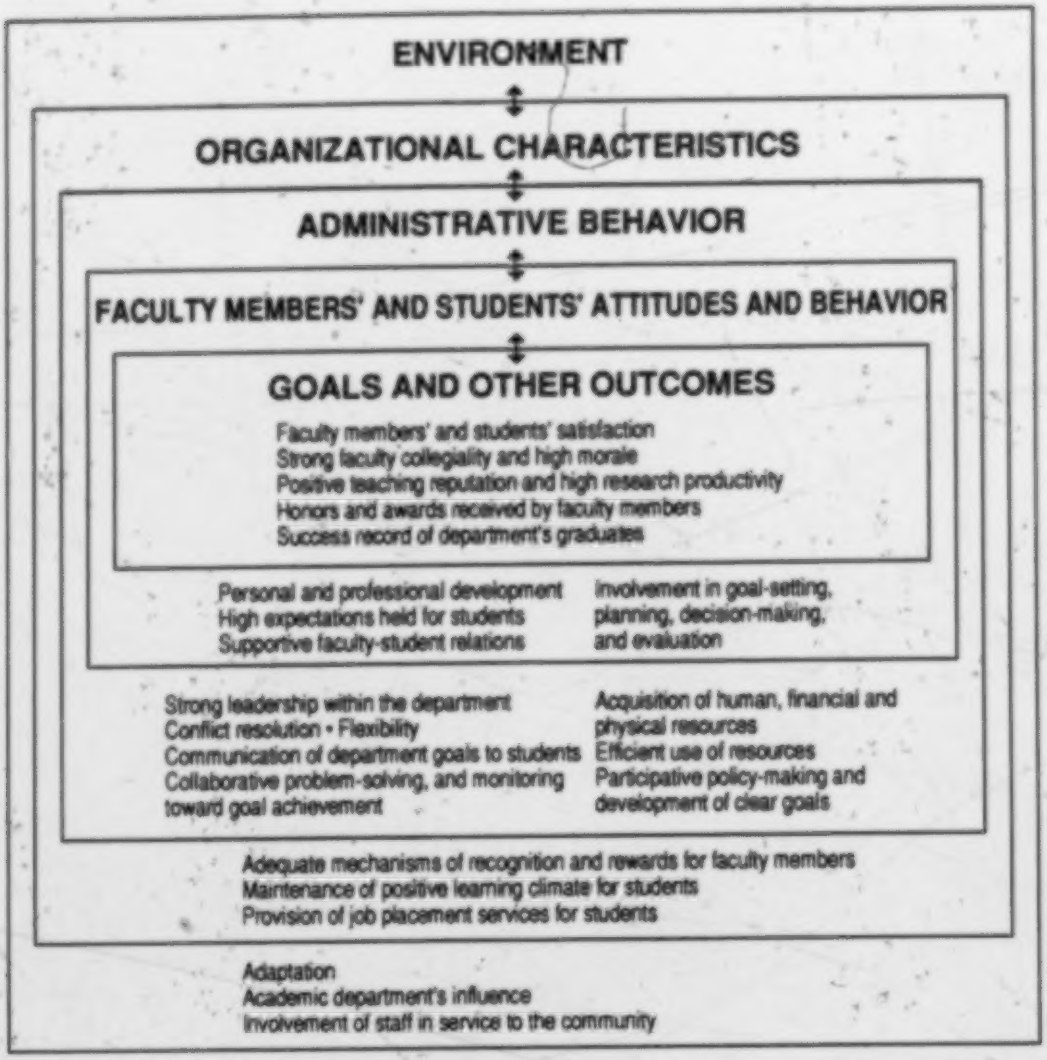
ENVIRONMENT
ORGANIZATIONAL CHARACTERISTICS
ADMINISTRATIVE BEHAVIOR
FACULTY MEMBERS' AND STUDENTS' ATTITUDES AND BEHAVIOR
GOALS AND OTHER OUTCOMES
Faculty members' and students' satisfaction
Strong faculty collegiality and high morale
Positive teaching reputation and high research productivity
Honors and awards received by faculty members
Success record of department's graduates
Personal and professional development
High expectations held for students
Supportive faculty-student relations
Involvement in goal-setting, planning, decision-making, and evaluation
Strong leadership within the department
Conflict resolution • Flexibility
Communication of department goals to students
Collaborative problem-solving, and monitoring toward goal achievement
Acquisition of human, financial and physical resources
Efficient use of resources
Participative policy-making and development of clear goals
Adequate mechanisms of recognition and rewards for faculty members
Maintenance of positive learning climate for students
Provision of job placement services for students
Adaptation
Academic department's influence
Involvement of staff in service to the community

Figure 2.1

A Conceptual Framework of Academic Department Effectiveness Criteria

living systems manner" (p. 4) are identified. These are environmental variables, organizational variables, personnel characteristics, goals, and other outcomes.

The framework embraces most of the existing perspectives on organizational as well as academic department effectiveness. For example, Bare's (1980) study focused on effectiveness criteria pertaining to selected activities of an academic department. Similarly, Cameron's (1978) study, which was carried out in the context of universities as a whole, outlined various effectiveness criteria that are highly relevant for academic departments. A significant difference between the two studies is that Bare's sample included chairpersons, faculty members, and students whereas only members of the "dominant coalition"—senior university administrators—were involved in the study by Cameron. The current study has gone a step further by including the perceptions of deans, chairpersons, faculty members, and graduate students.

In line with the approach taken by Steers (1977), many organizational effectiveness researchers analyzed organizational, environmental, employee, and managerial characteristics that contribute to effectiveness. Johnson (1988) and Highett (1989), for example, used Steers' approach in conjunction with Ratsoy's (1983) "eclectic taxonomy of organizational variables" (p. 3) to generate potential effectiveness criteria. This study also benefited from the aforementioned studies. However, the criteria derived in these studies were modified to fit the characteristic of an academic department. Besides, other criteria that emerged from two pilot studies were added to the framework.

In short, the framework focuses on multiple effectiveness criteria related to the multiple departmental activities and characteristics. Clearly, it also has dynamic systems characteristics tailored to fit academic departments.

Perceptions

The current study was based upon perceptions of deans, chairpersons, faculty members, and graduate students regarding criteria for use in assessing the effectiveness of academic departments. It is appropriate, therefore, to present a brief analysis of the current literature that deals with perceptions and perceptual data. Many writers (e.g., Johns, 1988; Shaver, 1981) broadly agree that perceptions can reasonably be considered as approximations of reality. However, they also stress that it is usually difficult for people to provide perceptual assessments, especially, regarding abstract organizational attributes such as satisfaction and morale.

Clement (1978, p. 51) indicated that it is generally accepted that perceivers' understandings of the world develop cumulatively as "perceptual structures." Moreover, a wide variety of social, cultural and personal factors influence the perceptions of social events. Overall, the quality of perceptual data depends upon the ability of respondents to identify and express their perceptions, the accuracy with which they perceive circumstances (Wrightsman, 1977), and the extent to which a variety of perceptual biases intervene in the perception process (Hochberg, 1978).

Perception theory has shown that respondents' personal and experiential backgrounds exert powerful influences on their perceptions and explanations of social events. This investigation's attention to the perspectives of multiple constituencies and of individual respondents has highlighted the presence of some of these influences. Moreover, it also emphasizes the importance of such an approach to inquiry of effectiveness especially in human service organizations. Obviously, understanding of organizational effectiveness is dependent not only upon performance but upon the respondents whose perspectives are used as the basis of measurement.

Because perceptual data are used widely in social science inquiries, researchers have valid reasons to study the nature of perception. Perceptions of situations, people and events shape individuals' understanding of social contexts

(Hochberg, 1978). Moreover, the expression of those perceptions reflect their affective and behavioral responses to those circumstances (Wrightsman, 1977). Likewise, many writers in the area broadly agree that perceptions are critical determinants of behavior in organizational settings (Litterer, 1973).

Consequently, many researchers studying organizational effectiveness (e.g., Bare, 1980; Campbell, 1977) have used perceptual data in their studies. However, these researchers also expressed caution due to the difficulty respondents may face in expressing impressions regarding abstract organizational attributes. To illustrate, Cameron and Whetten (1983) commented that "individuals frequently cannot report accurately the criteria of organizational effectiveness that they implicitly hold" (pp. 12-13). They also cautioned that researchers should take appropriate steps to clarify the instrument and not burden respondents unreasonably in the pursuit of perceptual data.

As mentioned above, there are many factors that affect perceptions. Researchers (e.g., Hochberg, 1978; Litterer, 1973; Clement, 1978) broadly agreed that perceptions are subject to a range of influences. For example many social and organizational experiences exert powerful influences on perception formation (Litterer, 1973). First, impressions and recent and frequent events are particularly important in shaping perceptions. For example, chairpersons, faculty members, and graduate students may perceive their academic departments as effective overall and effective on specific criteria; on the other hand, the majority of them may share a grave concern that financial problems are imposing major constraints on the performance of academic departments. A possible explanation for such a widely shared concern may be the extensive coverage being given to current budgetary difficulties facing universities.

Aspects related to prior social contacts and group norms are also important in the formation of perceptions. In particular, interaction with leaders, colleagues and groups can also socialize individuals to understand organizational contexts and shape their socio-emotional perspectives in particular ways (Biglan, 1962; Litterer, 1973).

Moreover, personal qualities of the perceiver also exert major influences on understandings of organizational settings (Johns, 1988). The major personality tendencies that affect subjective or perceptual performance assessments include the following:

The first, usually called "leniency effect," refers to the tendency to perceive performance as especially good. The second is commonly known as the "halo effect" and occurs when the observer forms lasting and global impressions from initial perceptions or particular characteristics. The third personality factor that may affect perceptual judgement is called the "central tendency effect." This involves assigning a middle-range performance category. If this tendency is predominant, the extremes of the rating categories are under-used. Besides, there are a range of other personality factors which involve both observable as well as unobservable psychological attributes.

Given all of these problems, it is clear that obtaining accurate perceptual evaluations of performance is difficult. However, many researchers have also explored various methods for reducing perceptual errors and biases. The clarity of the questions in the instrument and of the descriptors in the rating scale can help to reduce some of the problems associated with perceptual assessments.

Another fundamental cause of problems with perceptual assessments is related to the insufficiency of information regarding the performance of an individual or an organization. Although it will be discussed in the section that deals with the development of the questionnaire used in the study, the instrument for the current investigation provided a category that respondents could choose if they felt unable to make judgements due to insufficient information regarding performance on certain criteria.

Perceptual assessments may also be affected by evaluators' tendencies to assign positive ratings to aspects that are primarily related to their own work.

Moreover, a related tendency of perceptual bias occurs if one has an inflated image of one's own organization or department. In particular, the presence of this tendency in evaluations of higher educations institutions has been confirmed by past studies (e.g., Blau, 1973). As a result, the findings of the current study were viewed in the context of these issues.

There were two reasons underlying this discussion on perception. In effectiveness research, there is a choice between objective data (for example, organizational records) and subjective, perceptual data (for example, interviews or questionnaire responses). Obviously, objective data have the advantage of being measurable, potentially less biased than subjective perceptual assessments, and representative of the official organizational position. There are, however, associated problems with such data. First, some of these data are mainly gathered for public image purposes. Second, the focus of the data may be narrow in scope and thus unsuitable for undertaking a relatively comprehensive assessment of performance in the organization.

On the other hand, despite the above-mentioned problems, the advantage of subjective or perceptual data is that a relatively broader set of criteria of effectiveness can be assessed from a wider variety of perspectives. Due to the wider scope and multiple purposes of the investigation, it was decided to utilize perceptual data gathered by means of a questionnaires.

The aforementioned issues related to perceptions were addressed in this study. First, the research instruments developed for the study were based upon an extensive review of prior research in the field of organizational effectiveness, in general, and academic department effectiveness, in particular. Second, because of their assumed competency, perceptual assessments of deans, chairpersons, faculty members, and graduate students do provide perspectives from which these strategic constituencies approach academic department effectiveness. As detailed in Chapter 3, two pilot studies were carried out to clarify and refine the questionnaire. Finally, and perhaps more importantly, many influential researchers (e.g., Cameron, 1978, 1986a; Bare, 1980; Zammuto, 1982) have indicated that the configuration of perceptions expressed by different constituencies—for example, university administrators, chairpersons, faculty members, and students—tend to reflect a fairly permanent collective state of mind.

Constraints on Effectiveness

The study of factors that constrain the effectiveness of organizations is an important but neglected research area. As a result, the present investigation made a provision to study the wide range of personal, organizational and environmental constraints on academic department effectiveness.

Although the domain of their observation was restricted to administrative behavior, Eastcott, Holdaway, and Kuiken (1974) indicated that identification of constraints may provide a perspective for appropriate decision-making, minimizing conflict, and dealing with the undesirable effects that may have negative impacts on the performance of organizations. However, the approach taken by this study was to identify and categorize administrative and other "factors that *inhibit* successful organizational performance" (Cameron, 1984, p. 245).

There are several reasons for inclusion of this area of research within the current investigation. First, as mentioned above, research on the constraints to effectiveness in the context of higher education institutions, in general, and academic departments, more specifically, is virtually non-existent. Second, and perhaps important from a pragmatic point of view, identification of factors that may hamper effective performance is relevant to practitioners. Moreover, researchers who called for the wider use of this line of inquiry in effectiveness studies (e.g., Cameron, 1984; Cameron & Whetten, 1983; Zammuto, 1982) observed that it is easy for evaluators to identify inhibiting factors accurately. It also has been established that organizational change and improvement is motivated more by recognition of problems than by achievement of success.

In the context of higher education institutions and academic departments within them, there are some sporadic mentions of constraints that impeded effective performance. Decreased government funding has caused budgetary difficulties in many universities. Besides, studies have identified many undesirable outcomes that are associated with financial restraint. Ell (1988) and Birnbaum (1988), for example, reported findings that tended to indicate a relatively high degree of correlation between financial constraint and declining morale among faculty members. In addition, due to lack of adequate funds appropriate equipment and facilities are not bought or repaired. Required faculty members may not be hired resulting in larger class-sizes and heavier workload for the existing staff.

In an extensive study of the performance of academic departments, Bare (1980) reported a finding that revealed a strong association between faculty workload and student satisfaction with their educational experience. The same study also tended to conclude that research productivity decreased as a result of heavy workload, in particular heavy teaching loads.

Steers (1977) and Campbell (1977), among others, have indicated that leaders can have an important impact on the effectiveness of organizations. Similarly, in the context of academic departments, Brown (1977) reported that "departments vary in effectiveness from period to period according to the changing balance of intellectual leaders and organizational leaders" (p. 189) Moreover, as McHenry (1977) has noted, the quality of departmental leadership is crucial for the constructive resolution of tensions and conflicts.

The twin problems of conflict among faculty members and low morale were also dealt with by Tucker (1984) who, in summing up much of the writing on conflict, stated that "there seems to be an inverse relationship between the degree of conflict in a department and the level of morale [and] in extreme cases unresolved conflict can destroy a department's effectiveness" (p. 217).

Overall, a comprehensive and systematic study of a wide range of environmental, organizational, administrative, faculty member- and student-related factors that inhibit effective performance in academic departments awaits further investigation. As discussed more fully in the next chapter, this study made provisions for deans, chairpersons, faculty members, and graduate students to state three major constraints on academic department effectiveness.

SUMMARY

This chapter reviewed the literature related to organizational effectiveness and academic department effectiveness. The literature on organizational effectiveness highlighted the fragmentary and theoretically diverse nature of effectiveness. A number of organizational effectiveness models have been proposed by scholars. The models differ in scope and utility. The goal model defines effectiveness as the extent to which an organization reaches its goals, whereas the systems approach focuses on the acquisition of needed resources. The multiple-constituency model, which represents a partial integration of the two models, defines effectiveness to the extent to which an organization's constituencies are minimally satisfied. An approach that incorporates the perceptions of multiple constituencies on a variety of effectiveness criteria was selected for the study because of its apparent comprehensiveness.

Regarding academic department effectiveness, the review revealed that more needs to be done. The studies undertaken so far are few and non-cumulative. Some of the noteworthy effectiveness criteria that emerged from these studies include students' educational satisfaction, faculty members' and the chairperson's satisfaction with teaching and research in the department, and high expectations held for students in the department. Collegiality and informal communication also were identified as potential criteria to be included in the assessment of an academic department's performance.

An expansive conceptual framework to guide the inquiry was also presented in the chapter. The model included variables pertaining to the environmental, organizational, and personnel aspects of academic departments. Goals and other outcomes were also covered. Finally, in recognition of the problems associated with perceptual assessments, steps taken to minimize perceptual inaccuracy were outlined.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

The research design and methodological procedures for the study constitute the substance of this chapter. Its main sections are research design, sampling, development of the questionnaire, distribution and returns of questionnaires, and analysis and reporting of the data. A short discussion of the University of Alberta and its academic departments is also included in the chapter.

RESEARCH DESIGN

To obtain information relating to the research questions, the current study investigated the perceptions of deans, chairpersons, faculty members, and graduate students regarding the effectiveness of academic departments. Data for the study were collected by means of a questionnaire prepared specifically for the study. Prior to data collection, two pilot tests were carried out to ensure that all important issues were investigated and to check the validity of the instrument.

The questionnaire requested deans to rate the importance of selected effectiveness criteria for academic departments (Research Question 1). In a similar manner, chairpersons, faculty members, and graduate students were asked to rate the importance of specified effectiveness criteria as well as the effectiveness of their academic departments on those criteria (Research Questions 3, 5, 6, 8, 9, and 11). All the selected strategic constituencies—deans, chairpersons, faculty members, and graduate students—were also given the opportunity to state three factors that inhibit the effectiveness of academic departments (Research Questions 2, 4, 7, and 10).

Statistical analysis was used to investigate similarities as well as differences among the strategic constituencies' perceptions of academic department effectiveness (Research Questions 12 and 13). Open-ended responses by all the constituencies about factors that inhibit academic department effectiveness were also compared by using statistical and content analyses (Research Question 14).

The investigation of the four constituencies' perceptions regarding the effectiveness of academic departments was the focus of the study. The plan followed was, therefore, to present first the findings of analyses of the questionnaire data obtained from each constituency and then to report a comparative analysis of the findings across the four constituencies.

Effectiveness ratings were also compared according to selected attributes of chairpersons, faculty members, graduate students, and their academic departments. In some cases, however, the number of respondents having certain attributes was too small to permit such analysis. The detailed information obtained from the open-ended responses in the questionnaire is interspersed with the presentation of statistical findings in order to provide a more complete description of the major outcomes of the study.

METHODOLOGY

The methodology of the current study was influenced by the review of the literature about effectiveness of academic departments and other organizations. The literature on school effectiveness also had some implications for the methodological direction of this investigation.

A consistent theme of writers in the field is the impossibility of developing a universal theory of effectiveness (Cameron, 1986a; Cameron & Whetten, 1983; Seashore, 1983; Zammuto, 1983). Consequently, the current study recognized the necessity of utilizing multiple models. Specifically, the research instrument developed for this investigation incorporated an expansive array of organizational as well as academic department effectiveness criteria. On the other hand, the enormity and ambiguity of the effectiveness construct required that a clear focus be given to the study and that the study be substantially delimited. The limitations and delimitations section at the end of this chapter deals with these matters in detail.

Sample Selection

The sample for this study consisted of the deans of the 11 departmentalized faculties as well as chairpersons, faculty members, and graduate students in selected academic departments at the University of Alberta. For the survey of chairpersons, faculty members, and graduate students, 28 academic departments were selected from the population of 90 departments.

To ensure that the sample of academic departments selected was random and stratified, the following procedure was followed. The three faculties with more than 10 departments (Arts, Medicine, and Science) contributed 12 departments to the sample (four each). The remaining eight faculties (Agriculture and Forestry, Business, Dentistry, Education, Engineering, Home Economics, Physical Science and Recreation, and Rehabilitation Medicine) with fewer than 10 departments were represented by 16 departments (two each). To ensure inclusion of both small and large departments, each faculty was divided into two groups of departments on the basis of the number of faculty members in the department. At least one department randomly selected from each group was included to form a sample of 14 small and 14 large departments. The mean of 18 FTEs was the cut-off point.

Questionnaires were sent to all the chairpersons of the 28 academic departments selected for the study. With the exception of professors emeriti, adjunct professors, professors with joint appointments in two or more departments, and clinical professors in the faculty of medicine listed as having "secondary appointment within the faculty," all the other faculty members in these selected departments formed the sample for the third strategic constituency. Overall, questionnaires were sent to 320 faculty members.

Most of the studies on the effectiveness of academic departments in higher education institutions have not included student perceptions (e.g., Cameron, 1978; Conrad & Blackburn, 1985). A notable exception was the study by Bare (1980) which included senior students in its sample. In order to recognize the importance of students as a strategic constituency for academic departments, the present study included graduate students in its sample. All graduate students in the 28 departments who had more than one year of enrolment in the selected departments were chosen for inclusion in the study because they were likely to have had a more intimate association with and therefore better knowledge about their own academic department. This sample consisted of 295 graduate students.

Approval to Conduct the Research

In accordance with the requirements of the University of Alberta, the details of the research were submitted for research ethics review, in this case to an Ethics Review Committee of the Department of Educational Administration. The proposed study was assessed to have met the ethical standards for research on human subjects. Following receipt of ethical approval all participants in the study were given an explanation of the study by means of a covering letter signed by the chairman of the researcher's supervisory committee and the researcher.

Development of Questionnaires

Based on an extensive and critical review of the literature on effectiveness of academic departments and other organizations, a questionnaire was prepared to elicit responses about academic department effectiveness. Chairpersons, faculty members, and graduate students were asked to assess the importance of an array of criteria for achieving effectiveness in academic departments and to judge the effectiveness of their academic departments using each of these criteria. Because deans are not usually related to a specific academic department on a day-to-day basis, they were requested to rate only the importance of the specified criteria for assessing the effectiveness of departments.

Most of the items called for respondents to provide ratings using a forced-choice Likert type scale. Space was also provided for open-ended responses related to additional effectiveness criteria not identified in the questionnaire and to factors that inhibit effectiveness. Moreover, respondents were given the opportunity to add any comments they wished to make about academic department effectiveness. A section designed to obtain demographic information about respondents was also included in the questionnaire.

During April and May 1990, exploratory interviews were conducted with five graduate students in the Department of Educational Administration. All of them had a particular interest in the administration of post-secondary education and had taken two or more graduate courses in this area. None was involved in the main study. The interviews were semi-structured. All respondents were asked about effectiveness of academic departments. In particular, they were asked to state the important criteria they would use to assess the effectiveness of an academic department. Moreover, they were also asked to identify the major factors that inhibit effective performance in academic departments.

Respondents presented many perspectives on the primary criteria of effectiveness of university academic departments. Two interviewees, in particular, who had worked for a long time in the context of academic departments provided rich and diverse criteria they deemed to be important for assessing performance in academic departments. All the interviewees also presented many organizational, administrative, staff- and student-related factors they considered to have a detrimental effect on the performance of academic departments.

The interviews were recorded by taking handwritten notes. This approach was found to be adequate by the researcher although it precluded the presentation of some responses in the respondents' own words. The interviewees were informed about the note-taking and reported that they were comfortable with this approach since none of the issues was sensitive.

Following the completion of preliminary interviews, the first draft of the questionnaire was pilot-tested with seven graduate students in the Department of Educational Administration. None of them had been among the interviewees. Besides completing the questionnaire, the respondents were asked to comment on the appropriateness, clarity, and completeness of the criteria, and on the length of the questionnaire. Many comments that pertain to the substantive issues under investigation were made.

Two respondents in the pilot-test questioned the appropriateness of the different scales used for the importance and effectiveness ratings. However, three other respondents indicated that although they did not understand why different scales were being used, they felt that this approach forced them to think about each rating rather than duplicating the responses. One of the respondents also provided a comment that proved to be very beneficial in preparing the final version of the questionnaire. This individual stated that although she was "usually involved in many of the academic department activities including some committee work, effectiveness ratings for some criteria was not easy." She suggested the inclusion of a response category for those respondents who may not have sufficient information to provide effectiveness ratings for some specified criteria. For the sample of graduate students in the final study, the addition of this response alternative was especially helpful.

Understandably, there were some questionnaire items for which graduate students had difficulty assigning effectiveness ratings.

Another respondent in the first pilot-test of the questionnaire suggested the inclusion of an item that deals with conflict resolution among faculty members. He related his experiences of working in departments where there was conflict that seriously hampered the effectiveness of his academic department. "A department's ability to resolve conflict among its members," he wrote, "is a hallmark of effectiveness. Clearly, this mainly depends on the leadership of the department." The suggestion was perceived to be useful and an item that focussed on conflict resolution among faculty members was included in the questionnaire.

The comments from the first pilot test were utilized in preparing the second draft of the questionnaire and copies were distributed to the members of the supervisory committee for the current study soliciting their reactions to it. The comments received were insightful and helpful. One committee member suggested the inclusion of three outcome criteria that had not been explicitly included in the questionnaire. These included criteria that dealt with success record of the department's graduates, positive reputation of staff in teaching, and high research productivity. This committee member also mentioned that "an academic department's political influence" in the university may be a critical ingredient for resource acquisition. There is research to support this contention (e.g., Pfeffer & Salancik, 1978). An item that focussed on this matter was, therefore, included in the questionnaire.

Another committee member suggested changes to be made to the item that originally read as "strong leadership by the chairperson." He felt that the faculty members and graduate students might have difficulty in responding to the item because of the focus on one individual, the chairperson. Moreover, the item did not fully reflect the assumed shared authority by the chairperson and faculty members in academic departments. As a result, this item was modified to read "strong leadership within the department."

There were two additional suggestions by the two remaining committee members. The first was a proposal for inclusion of an item that focussed on efficiency. Inasmuch as efficiency is perceived as a construct related to effectiveness by many organizational theorists, the suggestion was accepted. The final suggestion made was that instead of asking respondents to provide "three factors that inhibit academic department effectiveness," that better and useful responses would be forthcoming if the questions pertain to their academic department rather than academic departments generally. The suggestion too was accommodated in the questionnaire.

By incorporating all the above-mentioned suggestions, a third draft of the questionnaire was prepared and pilot-tested with a new group of seven graduate students not included in the main study. The second pilot-test indicated that the questionnaire was relatively comprehensive, clear, and suitable for the purposes of the investigation.

As noted earlier, the main basis of the questionnaire was an extensive review of the literature on effectiveness in both general organizations and academic departments. Specifically, Cameron's (1978) study was used in the development of the initial items. Although his study was undertaken in the context of colleges and universities, the dimensions identified in the investigation were easily adapted to suit the characteristics of academic departments. Ratsoy's (1983) organizational effectiveness checklist provided a general classification for the proposed framework. Bare's (1980) study also was beneficial. His questionnaire was not as extensive as the one used in this investigation. However, as one of the few available questionnaires specifically prepared to assess the performance of academic departments, it was helpful.

Questionnaires used to investigate organizational effectiveness in the context of schools were also consulted. These included questionnaires developed by Gunn (1984), Johnson (1988), and Highett (1989). In addition, questionnaires for researching effectiveness in business organizations (e.g., Steers, 1977; Zammuto, 1982) were reviewed and some items suggested by them included in the instrument used in the present study.

As Cameron and Whetten (1983) explained, purposeful investigation of effectiveness requires selection of appropriate criteria which are relevant to the essential characteristics and activities of the organization. Although there was an endeavor to be comprehensive in the current survey, the need to delimit the study and not burden respondents with too many response items led to the exclusion of some potential items that were deemed to make only a minor contribution to the study.

Distribution and Return of Questionnaires

Questionnaires were mailed to all the deans, chairpersons, faculty members, and graduate students in the sample on October 1, 1990. A covering letter from the chairman of the supervisory committee as well as a letter from the researcher outlined the purpose and importance of the study, and requested respondents' assistance in completing the questionnaire. A self-addressed return envelope was provided for campus mailing. Two weeks later (October 16, 1990) a follow-up letter was sent requesting those who had not responded to do so by October 25, 1990. Copies of the covering letters and the follow-up letters are included in Appendix A.

Overall, seven (63.6%) of the 11 questionnaires distributed to deans were completed and returned. One dean stated that, because he was extremely busy he was unable to find the time to complete the questionnaire. Twenty (71.4%) of the 28 chairpersons surveyed returned the questionnaires. For faculty members and graduate students, the response rates were as follows: 201 (62.8%) of the 320 faculty members in the sample, and 200 (67.8%) of the 295 graduate students surveyed returned the questionnaires.

Kerlinger (1973, p. 14) reported that high response rates to mail questionnaires, although very important, are rare. He added that, at best, the researcher may have to be satisfied with return rates of 50% or 60%. Furthermore, most of the response rates for survey questionnaires in universities have been in the neighborhood of 50%. Examples are, among others, the 51% response rate of faculty members and chairpersons in Bare's (1980) study, and 48% response rate for the research done by Ell (1988). Although the researcher would have liked higher returns than were obtained in the current study, when one considers the returns in other university questionnaire studies, the response rates for this study can be deemed to be satisfactory.

Data Analysis

Most of the data obtained by means of the questionnaires were suitable for quantitative analysis. Open-ended responses were content analyzed. First, demographic profiles of the respondents were prepared. These are reported in the next chapter.

Importance and effectiveness ratings were analyzed using means and percentage frequency distributions. Pearson product moment correlations were used to investigate relationships among individuals criteria. Statistical significance for differences between means were tested using the Scheffé ANOVA test for instances of three or more groups at the $p<.1$ significance level. The Scheffé procedure that was used in this study was adjusted for the number of rows whose columns were compared. When only two groups were compared, the *t*-test was used at the $p<.01$ significance level. The significance levels reported in this study refer to two-tailed tests. In almost all cases, the significance levels passed are reported.

Other statistical procedures were also employed in order to see whether some underlying pattern of relationships existed in the respondents' data. Multiple linear regression analysis was used to determine the best predictors of overall effectiveness of academic departments. As noted earlier, the number of chairpersons who responded was 20. The larger numbers of responses from faculty members and graduate students enabled the researcher to undertake certain analyses that were not possible for the sample of chairpersons. For example, only faculty members' and graduate students' responses were subjected to multiple linear regression analysis. Since the number of chairpersons who returned the questionnaire was not sufficient to undertake such procedures (Pfaffenberger & Patterson, 1987, p. 823), chairpersons' data were not subjected to multiple regression analysis.

As is always true in practical applications, it must be acknowledged at the outset that the ideal assumptions of regression analysis are not met by the data. For example, strong correlations between some of the items raise the problem of multicollinearity. Detailed discussion of this and other issues related to regression analysis are presented in Chapters 6 and 7.

To examine the degree of association between parallel sets of rank-ordered items, Spearman's rank correlation analysis was utilized. In recognition of the multiple constituency approach taken in the study, the data were analyzed for each constituency and then compared across the constituencies for similarities and differences.

As noted earlier, respondents were asked to provide and to rate effectiveness items not identified in the questionnaire. Many respondents introduced additional aspects which, in most cases, were already included elsewhere in the questionnaire. These additional items were not included in the statistical analyses because their number was small; however, the criteria are documented in detail in the study findings chapters. Other open-ended response items were concerned with identifying factors that inhibit the effectiveness of academic departments. Many such factors were identified and these were subjected to content analyses. Moreover, these constraints and the frequencies of mention were reported and the responses compared across the selected strategic constituencies.

Validity and Reliability

To be valid, research instruments must measure what the investigator intends to measure. In developing the questionnaire, the following steps were taken to enhance validity. First, the process of questionnaire construction was based on an expansive theoretical and research literature, a variety of prior research instruments (e.g., Cameron, 1978; Bare, 1980; Gunn, 1984; Johnson, 1988; Highett, 1989), and two pilot tests. The questionnaire was also reviewed by members of the the researcher's supervisory committee. The assumed competence of almost all members of the selected strategic constituencies as respondents was also a relevant factor in the consideration to enhance validity.

As noted by Carmines and Zeller (1979, p. 11), reliability is defined as the degree to which a procedure for measuring produces similar outcomes when it is repeated. In survey research, the reliability of the instrument is usually checked statistically through correlation of parallel sets of items referred to as the split-half method. This procedure, usually known as the Guttman split-half method (odd-even split of items), was used to check the reliability of the instrument employed for this study and the results are shown in Table 3.1.

Downie and Heath (1965) contended that reliability coefficients tended to be about .9 or more when the instrument is "well-made and standardized" (p. 220). The results reveal that the questionnaire used for this study had satisfactory reliability.

Overall, the multi-dimensional and multi-constituent research methodology used in this study revealed shared as well as individual perceptions about the various

Table 3.1

Reliability Coefficients for the Effectiveness and Importance Scales of the Questionnaire

Constituency	Importance Scale	Effectiveness Scale
Deans	.96	—
Chairpersons	.89	.98
Faculty members	.93	.96
Graduate students	.91	.97

aspects of academic department effectiveness. By employing a broad and relatively comprehensive framework that incorporated a wide range of criteria, the current study was intended as an improvement on the more limited perspectives and simplistic approaches taken in conventional research into academic department functioning. In these traditional studies which are characterized as classic two-variable studies of academic department performance, the researcher usually examines a single outcome such as research productivity in terms of a single predictor such as research grants or number of Ph.D. students completing programs annually.

As Cameron (1986a) remarked, organizational effectiveness appraisals are most meaningful if the major aspects of performance can be identified. This is especially true in educational institutions such as universities and academic departments within them, which display many of the features of "organized anarchies" (Cameron, 1981, pp. 25-26). These type of organizations are usually characterized by complex goals, unclear technology, and fluid participation of members in the organization's leadership.

Consequently, it was deemed appropriate to consider seven methodological issues raised by Cameron and Whetten (1983) in connection with the investigation of effectiveness in universities and other human service organizations.

The first issue deals with the choice of constituencies whose perspectives is used to judge effectiveness. Clearly, effectiveness must be defined and assessed from someone's viewpoint. As noted earlier, some researchers (e.g., Cameron, 1978) have advocated using the dominant coalition as the source of criteria, and others (e.g., Van de Ven & Ferry, 1980) have argued for organizational members to be the source. No agreed-upon decision rule is available to identify one constituency's criteria as being more important than another. Although the strategic constituencies of academic departments are many, a choice was made to include only the most important constituencies that have interdependency relationships with academic departments.

The second issue refers to the domains of activities which are the focus of investigation. This study attended to the three commonly articulated activities of academic departments that pertain to teaching, research, and service to the community. A framework was prepared to identify the main criteria related to these three major activities performed in academic departments.

The level of analysis used for an effectiveness study forms the third methodological issue. The current investigation's focus of analysis, as mentioned earlier, was the academic department. This focus was taken for at least three reasons. First, studies into the effectiveness of academic departments are few. Second is the recognition that academic departments are a predominant force in higher education and are the familiar units in a higher education institution. As noted by McHenry (1977) and Trow (1977), today's professors and students, in contrast to those of earlier centuries, have grown up through the departmental system. Third, academic departments offer simplicity of structure as organizational subunits based on the commonly accepted divisions of knowledge, and clear hierarchy of authority. As such they also afford convenience by grouping faculty members and graduate students on the basis of their particular interest in a field of knowledge. Because of its simplicity of structure, importance in higher education and the dearth of research on the area, the academic department was chosen as the level of analysis for this investigation.

The fourth methodological issue that has to be made explicit in effectiveness research is the purpose of the assessment. Restated briefly, the current investigation was designed to identify the most important effectiveness criteria for academic departments. A secondary purpose was to assess the overall effectiveness, as well as performance in specific criteria, of academic departments at the University of Alberta. The purposes of the evaluation also helped to determine the appropriate constituencies.

The fifth issue raised by Cameron and Whetten (1983) deals with the time frame employed in the effectiveness research. The criteria investigated in this study were mainly oriented toward the short term (for example, morale, and satisfaction of faculty members and graduate students with different facets of academic department) and intermediate term (for example, research productivity, and adaptation.). Long-term effectiveness (for example, survival) was not considered in this investigation.

The type of data that are being used to study effectiveness is the sixth methodological consideration. This refers to a choice between using information collected by the organization itself and stored in official documents, or relying on perceptions obtained form members of various constituencies. In brief, the choice is between objective data or subjective, perceptual data obtained via questionnaire responses and/or interviews. Generally, objective data have the advantage of being quantifiable and potentially less biased than individual perceptions. However, the focus of such data is usually narrow.

On the other hand, as noted by several writers on organizational effectiveness (e.g., Campbell, 1977; Cameron & Whetten, 1983), the advantage of subjective or perceptual data is that a broader set of criteria of effectiveness can be assessed from a wider variety of perspectives. There are, however, many disadvantages associated with perceptual data. For example, bias, and lack of information on the part of the respondents may decrease the reliability and validity of the data. But with appropriate steps the problems associated with perceptual data may be minimized. In the current study, as detailed in the preceding chapter, the design of the instrument coupled with the assumed competency of the respondents have helped to minimize the influence of perceptual biases.

The seventh and final methodological issue in effectiveness research deals with the referent against which performance is judged. There are a variety of referents or standards against which organizational effectiveness can be judged. In this investigation, effectiveness was assessed by respondents' subjective, perceptual judgements. Scaled levels of importance and effectiveness ratings were provided.

The advantage of the above-discussed methodological issues is that they help to circumscribe the construct boundaries of effectiveness (Zammuto, 1982). Such circumscription, however, does not rule out the accommodation of a wide variety of behaviors, preferences, and performance standards under the single rubric of effectiveness. Because effectiveness is a complex construct, it is inappropriate to rely on univariate measures. Following the principle that an instrument must be as complex as the phenomenon it is measuring, multiple criteria that match the organizational setting in which they are applied were provided. For this investigation, criteria specifically related to academic departments were used instead of universal criteria applicable to all types of organizations.

Perceptions about the resultant array of criteria were elicited in measurable form by means of questionnaire responses from deans, chairpersons, faculty members, and graduate students. Clearly, survey research is one of the appropriate methods to obtain such an extensive collection of quantifiable data and facilitate statistical analysis with generalizable outcomes.

The questionnaire responses were processed by computer and yielded an abundance of easily communicable, comprehensive data. The information obtained from the open-ended responses was subjected to content analysis. Moreover, additional effectiveness criteria and constraints on effectiveness provided by members of the four strategic constituencies were recorded in detail.

Finally, and as will be seen later, methodological approaches followed in the current study may have a contribution to make to future research. The multi-dimensional character of effectiveness, and multiple constituency approach to the assessment of performance in academic departments are captured in the research instrument used, the research design employed, and the methodological approaches taken in this study.

Limitations and Assumptions

The following limitations and assumptions were relevant to this study:

1. The reliance of this research upon the questionnaire instrument limited the types of perceptions that could be expressed and investigated.

2. Deans, chairpersons, faculty members, and graduate students were aware of and could assess the effectiveness of academic departments.

3. The techniques used to analyze the data reflected accurately the responses that were obtained.

Delimitations

In order to provide a manageable scope for the study, the following delimitations were imposed.

1. The study was confined to the examination of selected effectiveness criteria derived both from the literature on academic department effectiveness as well as other organizations, and the two pilot studies. Also, provision was made for respondents to

indicate only up to three effectiveness criteria, and only up to three factors that most inhibit the effectiveness of academic departments.

2. The study was delimited to academic departments at the University of Alberta. Although the University of Alberta is similar to many comprehensive universities in North America, inclusion of academic departments from other universities would have made the study's findings more generalizable.

Overview of the Focal Organization

Randomly selected academic departments at the University of Alberta were the focus of analysis for this investigation. Founded in 1908, the university has grown from a small group of four professors and 45 students to a large, modern, and complex institution. According to the 1989-90 *Data Book* of the University of Alberta, there were 25,039 full-time students (22,173 undergraduates and 2,866 graduate students), and 4,497 part-time students (3,451 undergraduates and 1,046 graduate students). In the 1989-90 academic year, there were 828 professors, 354 associate professors, and 224 assistant professors. Overall, there were 1406 full-time faculty members, 3912 graduate students, and 25,624 undergraduate students. The university had 16 faculties and 90 academic departments.

The University of Alberta at the time of writing was the second-largest institution of higher learning in Canada. It has developed an international reputation in many fields. Most of the facilities in the institution are quite modern. The university's official mission is "to provide high quality and accessible education."

Currently, the university is facing budgetary difficulties due to funding cutbacks by the government and increased student enrolment that has outpaced available financial resources. With the plan by the federal government, announced in the April 1989 budget, to reduce the rate of growth of E.P.F. (Established Program Funding) arrangements by 1% (Gregor, 1990), it is generally expected that the university will face financial constraints for the foreseeable future.

This prevailing condition in the university is an important context within which the findings of the study have to be viewed. Understandably, for example, investigation of constraining influences on effectiveness were commonly related by all the constituencies to the current problems of funding cutbacks and the undesirable effects such as higher student/faculty ratios and low morale. Overall, this brief review is designed to provide an understanding of some of the characteristics and conditions that currently prevail at the University of Alberta.

SUMMARY

The research design and methodological procedures employed in the study were described in the chapter. To obtain information relating to the research questions, concepts and instruments drawn from the literature, preliminary interviews, and two pilot studies were used to develop and improve the questionnaire that was used in the investigation.

The questionnaire for chairpersons, faculty members, and graduate students required respondents to rate the importance of specified criteria for assessing the effectiveness of academic departments and also to rate the performance of their departments on those criteria. Deans were requested to rate only the importance of a variety of criteria for assessing effectiveness in departments. All respondents were given the opportunity to advance any additional criteria and also to identify factors that constrain effectiveness in academic departments.

The data were analyzed using various statistical techniques. These included comparison of means, analysis of variance, correlational analysis, factor analysis, and multiple linear regression analysis. Open-ended responses were subjected to content analysis. The Guttman split-half method was used to test the reliability of the questionnaire; this was found to be satisfactory. Review of the pertinent literature and existing research instruments, and two pilot studies also helped to establish the validity of the questionnaire used in this study.

CHAPTER 4

PROFILES OF THE RESPONDENTS

In this Chapter, the profiles of the respondents—chairpersons, faculty members, graduate students, and deans—are presented. These profiles summarize several personal, academic, and professional attributes of the study respondents.

Characteristics of the Chairpersons

Demographic information about the chairpersons who completed the questionnaire are recorded in Tables 4.1 and 4.2. The data recorded in Table 4.1 show that 85% (17 out of 20) of the chairpersons were professors, and 15% were associate professors. Similarly, 85% of the chairpersons held a doctoral degree, while 15% had a master's degree. Males outnumbered female chairpersons in the ratio of 9:1 (18 males and 2 females). The majority of the chairpersons were in the 40-49 age range (70%), while 30% were in the 50-59 age group.

At the time of the investigation, 50% of the chairpersons had been in their position for one year, and 50% had served as chairpersons from two to ten years. Overall, the group's mean length of experience as chairpersons was 3.3 years.

Chairpersons were also asked to indicate their length of administrative experience in an academic context before attaining their present position. The majority (65%) reported that they had prior administrative experience ranging from 1-10 years, while 35% indicated they had no such prior administrative experience.

Table 4.1

Selected Personal and Professional Characteristics of Chairpersons
(n = 20)

Characteristic	f	%
Sex		
Female	2	10
Male	18	90
Age		
40-49	14	70
50-59	6	30
Academic rank		
Professor	17	85
Associate Professor	3	15
Highest academic degree		
Doctorate	17	85
Master's	3	15

Table 4.2

Years of Administrative Experience of Chairpersons
(n = 20)

Years of experience	f	%f	Cum %f
In present position			
1	10	50	50
2	2	10	60
4	2	10	70
5	2	10	80
6	1	5	85
8	1	5	90
10	2	10	100
mean = 3.3			
In prior administrative capacity			
0	7	35	35
1	1	5	40
2	1	5	45
3	4	20	65
4	1	5	70
5	2	10	80
6	1	5	85
9	1	5	90
10	1	5	95
14	1	5	100
mean = 3.4			

Characteristics of the Faculty Members

Table 4.3 summarizes the demographic information about the faculty members who returned the questionnaire. A substantial majority of the respondents (81.1%) were males. Faculty members were most often in the 40-49 (37.8%) and 50-59 (33.8%) age ranges. More than half of the 201 respondents (55.7%) were professors, 29.4% were associate professors, and 13.9% were assistant professors. Faculty members with the doctorate outnumbered those with master's degree in the ratio of 8:1 (176 and 22). Moreover, 157 (78.1%) of the respondents were tenured.

At the time of the study, many of the respondents had served in their departments as faculty members for a number of years. As shown in Table 4.4, the mean length of years of the respondents' appointments in their departments was 13.8 years. More than 68.0% of the respondents had been in their departments for more than 10 years.

As the data in Table 4.5 indicate, 15.4% of the faculty member respondents were from the Faculty of Science. Faculty members from the Faculties of Arts and Education constituted about 13.0% each of this constituency, whereas those from the Faculties of Dentistry, Business, Physical Education and Recreation, and Medicine represented 10.4%, 8.5%, 7.5%, and 7.0% respectively. Ten respondents did not specify their faculty or department.

Characteristics of the Graduate Students

As noted earlier, 200 graduate students returned the questionnaire. Table 4.6 displays different characteristics of this group. Unlike the other constituencies, a substantial number of the respondents (43.5%) were females. The mean length of enrollment of the graduate students in their graduate programs was 2.5 years. As might be expected, the majority of students were 30 years old or younger.

Table 4.3

Selected Personal and Professional Characteristics of Faculty Members
(n = 201)

Characteristic	f	%f	Cum %f
Sex			
Female	38	18.9	
Male	163	81.1	
Age			
Under 30	1	0.5	0.5
30-39	40	19.9	20.4
40-49	76	37.8	58.2
50-59	68	33.8	92.0
60 or older	16	8.0	100.0
Academic rank			
Professor	112	55.7	55.7
Associate Professor	59	29.4	85.1
Assistant Professor	28	13.9	100.0
Highest academic degree			
Doctorate	176	87.6	87.6
Master's	22	10.9	98.5
Unspecified	3	1.5	100.0
Tenure status			
Tenured	157	78.1	
Non-tenured	44	21.9	

Table 4.4

Faculty Members' Length of Appointment in Their Academic Departments
(n = 201)

Years	f	%f	Cum %f
1-9	72	31.3	31.3
10-19	65	36.9	68.2
20-29	56	27.8	96.0
30-39	8	4.0	100.0

mean = 13.8 standard deviation = 8.5

Table 4.5

Classification of Faculty Members by Their Faculty
(n = 201)

Faculty	f	%f
Agriculture and Forestry	10	5.0
Arts	27	13.4
Business	17	8.5
Dentistry	21	10.4
Education	28	13.9
Engineering	13	6.5
Home Economics	6	3.0
Medicine	14	7.0
Physical Education and Recreation	15	7.5
Rehabilitation Medicine	9	4.5
Science	31	15.4
Unspecified	10	5.0

Table 4.6

Selected Personal and Educational Characteristics of Graduate Students
(n = 200)

Characteristic	f	%f	Cum %f
Sex			
Female	87	43.5	
Male	113	56.5	
Age			
Under 30	116	58.0	58.0
30-39	61	30.5	88.5
40-49	19	9.5	98.0
50-59	3	1.5	99.5
60 or older	1	0.5	100.0
Degree program			
Doctorate	87	43.5	43.5
Master's	112	56.0	99.5
Unspecified	1	0.5	100.0
Faculty			
Agriculture and Forestry	18	9.0	
Arts	21	10.5	
Business	6	3.0	
Dentistry	3	1.5	
Education	24	12.0	
Engineering	19	9.5	
Home Economics	11	5.5	
Medicine	27	13.5	
Physical Science and Recreation	11	5.5	
Rehabilitation Medicine	8	4.0	
Science	45	22.5	
Unspecified	7	3.5	

On further analysis it was determined that most of the respondents in the 40-49 age range were enrolled in the Faculty of Education.

In terms of degree pursued, 112 (56.0%) were in the master's program, and 87 (43.5%) were studying to earn a doctorate. Most (91.0%) were full-time students. The largest number were enrolled in the Faculty of Science (22.5%). Medicine and Education graduate students formed 13.5% and 12.0% of the sample of respondents respectively.

Characteristics of the Deans

Questionnaires were sent to the 11 deans of the departmentalized faculties, and seven responded. All were full professors. The mean number of years they had served as dean was 4.1; however, five of them had fewer than this mean level of years of service. None had fewer than five years of administrative experience, in an academic context, before becoming dean. The mean number of years of their administrative experience was 10.6.

Comparison of Respondents with Non-Respondents

To ensure that there were no systematic differences between the non-respondents and those who returned the questionnaire, selected personal, situational, and professional characteristics of the two groups were compared. The bases of the comparisons were sex and academic rank for chairpersons. Faculty members were compared by their sex, academic rank, and the faculty to which they belong. Similarly, graduate students were compared according to their sex, degree program, and their faculty. There were no substantial differences between the two groups and there was no reason to believe that the non-respondents were significantly different from the respondents. This general conformity gave assurance that the non-respondents have not rendered the sample unrepresentative. The data are summarized in Tables 4.7, 4.8, and 4.9. Since the number of deans in the sample was small, no comparison of the respondents and non-respondents was undertaken.

Table 4.7

Selected Personal and Professional Characteristics of Respondent and Non-Respondent Chairpersons

Characteristic	**Respondents**		**Non-Respondents**	
	f	**%f**	**f**	**%f**
Sex				
Female	2	10	1	12.5
Male	18	90	7	87.5
Academic Rank				
Professor	17	85	8	100
Associate Professor	3	15	—	—

Respondents Who Had Insufficient Information on Some Questionnaire Items

As noted earlier, a sixth response category was provided for respondents to circle if they had insufficient information to give an assessment of the effectiveness of their academic departments on a particular item. This response alternative was sparingly used by chairpersons and faculty members. The item that focussed on student satisfaction with extracurricular activities in the department (item 31) invited the highest use of the sixth response category both by chairpersons and faculty members. Five chairpersons and 42 faculty members used it for this item. Besides the above-mentioned item, 27 faculty members indicated they had insufficient information for the item that dealt with student satisfaction with academic advising in the department (item 30).

Graduate students used the response category predominantly for the following items that mainly dealt with faculty members: involvement of faculty members in

Table 4.8

Selected Personal and Professional Characteristics of Respondent and Non-Respondent Faculty Members

Characteristic	Respondents		Non-Respondents	
	f	%f	f	%f
Sex				
Female	38	18.9	21	17.6
Male	163	81.1	98	82.4
Academic rank				
Professor	112	55.7	69	58.0
Associate Professor	59	29.4	36	30.3
Assistant Professor	28	13.9	14	11.7
Faculty				
Agriculture and Forestry	10	5.0	7	6.0
Arts	27	13.4	17	14.3
Business	17	8.5	9	7.6
Dentistry	21	10.4	12	10.0
Education	28	13.9	17	14.3
Engineering	13	6.5	8	6.7
Home Economics	6	3.0	5	4.0
Medicine	14	7.0	12	10.1
Physical Education and Recreation	15	7.5	8	6.7
Rehabilitation Medicine	9	4.5	6	5.0
Science	31	15.4	18	15.0
Unspecified	10	5.0	—	—

Table 4.9

Selected Personal and Professional Characteristics of Respondent and Non-Respondent Graduate Students

Characteristic	Respondents		Non-Respondents	
	f	%f	f	%f
Sex				
Female	87	43.5	44	46.3
Male	113	56.5	51	53.7
Degree program				
Doctorate	87	43.5	40	42.1
Master's	112	56.0	55	57.9
Unspecified	1	0.5	—	—
Faculty				
Agriculture and Forestry	18	9.0	8	8.4
Arts	21	10.5	12	12.6
Business	6	3.0	4	4.2
Dentistry	3	1.5	2	2.1
Education	24	12.0	6	6.3
Engineering	19	9.5	10	10.5
Home Economics	11	5.5	3	3.2
Medicine	27	13.5	14	14.7
Physical Education and Recreation	11	5.5	8	8.4
Rehabilitation Medicine	8	4.0	3	3.2
Science	45	22.5	25	26.3
Unspecified	7	3.5	—	—

evaluation of department (item 19: 94 of the 200 respondents); faculty satisfaction with personal and professional development (item 15: 87 respondents); department's ability to resolve conflict among its members (item 42: 87 respondents); involvement of faculty members in departmental goal-setting (item 17: 86 respondents); and involvement of faculty members in departmental decision-making (item 18: 85 respondents).

There is a possible explanation for the heavy use of the response category by graduate students for the above-mentioned department effectiveness items. It may be too difficult or impossible for graduate students to rate the effectiveness of academic departments on issues dealing with the satisfaction of faculty members with different activities in the department. Many of them might have had incomplete knowledge about such matters. Also, some respondents might have found it difficult to answer some of the items in the final questionnaire, even though two pilot studies had been undertaken to clarify the items used in the questionnaire.

SUMMARY

Data for the study were collected by means of questionnaires sent to faculty deans, department chairpersons, faculty members, and graduate students in 28 randomly selected departments at the University of Alberta. These respondents were described in the present chapter.

More than four-fifths of the chairpersons were male. A significant majority were full professors and held the doctorate. Their mean length of service as chairpersons was about three years. Slightly more than half of the faculty members who returned the questionnaire were professors, about 30% were associate professors, and the rest were assistant professors. Almost 90% of the faculty members held the doctorate. The mean length of appointment in their department approached 14 years.

Most of the graduate students who completed the questionnaire were full-time students. About 44% of them were in the Ph.D. program, and the rest were enrolled in a master's degree program. Of the 11 deans of departmentalized faculties at the University of Alberta, seven returned the questionnaire. All were professors and all held a doctoral degree.

The respondent chairpersons, faculty members, and graduate students seemed to be representative of the entire sample—at least in respect of selected characteristics upon which comparisons could be made with non-respondents.

CHAPTER 5

EFFECTIVENESS OF ACADEMIC DEPARTMENTS: CHAIRPERSONS' PERSPECTIVES

The main purpose of this study, restated briefly, was to investigate the most important criteria used to assess the effectiveness of academic departments. In this chapter, the perceptions about academic department effectiveness obtained from chairpersons are analyzed. Detailed individual responses obtained from the open-ended section in the questionnaire are interspersed within the presentation of statistical findings.

This chapter provides information related to the following research questions which were stated in the first chapter.

1. How do chairpersons rate the performance of their academic departments on important aspects of effectiveness?
2. Which criteria are perceived by chairpersons to be the most important for assessing the effectiveness of academic departments?
3. What factors are perceived by chairpersons to constrain the effectiveness of academic departments?

Overall and Criterion Effectiveness of Academic Departments

Table 5.1 displays chairpersons' perceptions of current overall department effectiveness, based on a five-point rating scale ranging from 1, "not effective," to 5, "very highly effective."

As shown in the table, chairpersons overall rated their academic departments as effective; none of these respondents rated their departments as ineffective or slightly effective. A "moderately effective" rating was provided by 25% of the chairpersons, while 65% of them selected the "highly effective" level.

Table 5.1

Chairpersons' Ratings of Levels of Overall Effectiveness of Their Academic Departments
(n = 20)

Level of overall effectiveness	**f**	**%f**
1. Not Effective	—	—
2. Slightly Effective	—	—
3. Moderately Effective	5	25
4. Highly Effective	13	65
5. Very Highly Effective	2	10

mean = 3.85; standard deviation = 0.59

Effectiveness assessments of academic departments on individual criteria, however, showed greater variation. Mean effectiveness ratings and standard deviations were calculated for each criterion. The findings are displayed in Table 5.2.

Generally, most of the means were in the range of the upper end of the scale. With the exception of only three items, all were above the scale midpoint of 3. Academic departments obtained the highest mean effectiveness ratings on acquisition of competent faculty members and flexibility of the department administration. Both had a mean of 4.11.

Other variables with high effectiveness ratings dealt with joint planning by chairperson and faculty members to accomplish goals (mean 4.10), and involvement of faculty members in departmental decision-making (4.00). Academic departments also obtained high means of effectiveness on aspects that focussed on cooperative support staff in the department (4.10), participative policy-making in the department (3.95),

Table 5.2

Chairpersons' Ratings of the Effectiveness of Their Academic Departments on Selected Aspects

(sorted by means)

	Department aspect	n	Effectiveness		Rank
			Mean	S.D.	
37.	Acquisition of competent faculty members	19	4.11	0.74	1.5
36.	Flexibility of the department's administration	20	4.11	0.75	1.5
2.	Joint planning by chairperson and faculty members to accomplish goals	20	4.10	0.72	3.5
21.	Cooperative support staff in the department	20	4.10	0.79	3.5
18.	Involvement of faculty members in departmental decision-making	20	4.00	0.65	5
33.	Participative policy-making in the department	19	3.95	0.71	6
4.	Collaborative problem-solving by chairperson and faculty members	20	3.90	1.02	8.5
5.	Strong faculty collegiality	19	3.90	1.10	8.5
17.	Involvement of faculty members in departmental goal-setting	20	3.90	0.79	8.5
39.	Efficient use of resources	20	3.90	0.79	8.5
11.	High morale among faculty members	20	3.85	1.04	11
32.	Success record of the department's graduates	19	3.84	1.26	12
6.	Supportive faculty-student relations	18	3.83	0.86	13
19.	Involvement of faculty members in evaluation of the department	20	3.80	1.01	14.5
27.	A positive learning climate for students	20	3.80	0.83	14.5
8.	High research productivity	19	3.79	1.18	16
42.	Department's ability to resolve conflict among its members	20	3.75	1.02	17.5
43.	Strong leadership within the department	20	3.75	0.91	17.5
15.	Faculty members' satisfaction with personal and professional development	19	3.74	0.99	19.5
29.	Student satisfaction with the formal learning experiences in the department	19	3.74	0.73	19.5
10.	Adequate mechanisms of recognition and rewards for faculty members	20	3.70	1.17	22
12.	Strong commitment to department by faculty members	20	3.70	1.08	22
38.	Acquisition of suitable material and physical resources	20	3.70	0.87	22

Table 5.2 (continued)

	Department aspect	*n*	Effectiveness		Rank
			Mean	S.D.	
34.	Adaptiveness of the department to changes in the environment	19	3.68	0.89	24
1.	Clear department goals	20	3.65	0.81	26
3.	Monitoring of progress to achieve department goals	20	3.65	0.88	26
20.	Involvement of faculty members in overall leadership of the department	20	3.65	0.81	26
14.	Faculty members' satisfaction with the research activity in the department	19	3.63	1.07	28
36.	Acquisition of financial resources by the department	20	3.60	0.82	29
22.	High expectations held for students in the department	20	3.55	0.76	30
7.	Positive reputation of staff in teaching	20	3.50	1.00	31.5
41.	Department's ability to obtain research grants	20	3.50	1.10	31.5
9.	Strong involvement of staff in service to the community	20	3.40	0.94	33
13.	Faculty members' satisfaction with the teaching in the department	18	3.39	0.86	34
40.	Department's influence in the University	20	3.35	0.81	35
16.	Honors and awards received by faculty members	19	3.32	0.96	36
30.	Student satisfaction with academic advising in the department	20	3.30	1.08	37
23.	Communication of department goals to students	20	3.20	0.62	38.5
31.	Student satisfaction with extracurricular activities in the department	15	3.20	1.42	38.5
28.	Provision of job placement services for students	17	3.06	1.35	40
26.	Involvement of students in evaluation of the department	20	2.95	0.95	41
24.	Involvement of students in departmental goal-setting	20	2.80	1.06	42
25.	Involvement of students in departmental decision-making	19	2.58	0.96	43

Note. 1. The scale used was as follows: 1 = Not Effective; 2 = Slightly Effective; 3 = Moderately Effective; 4 = Highly Effective; 5 = Very Highly Effective.

2. The n's vary because respondents did not provide ratings for some items.

3. Means which are tied are given the same rank.

collaborative problem-solving by chairperson and faculty members to accomplish goals (3.90), involvement of faculty members in departmental goal-setting (3.90), strong faculty collegiality (3.90), efficient use of resources (3.90), high morale among faculty (3.85), supportive faculty-student relations (3.83), success record of the department's graduates (3.83), involvement of faculty members in evaluation of the department (3.80), and a positive learning climate for students (3.80).

However, the performance of academic departments on some items was viewed less favorably by chairpersons. The lowest mean ratings were obtained for variables that focussed on student involvement in the leadership of the academic department. These were involvement of students in departmental goal-setting (2.80) and decision-making (2.58). The item that dealt with the involvement of students in evaluation of department had a slightly higher mean of 2.95.

Provision of job placement services for students had a mean of 3.06. Two chairpersons commented that faculty-level structures may be better suited to provide such services. Two aspects (student satisfaction with extracurricular activities in the department and provision of job placement services for students) with substantially higher standard deviations than the other items. This indicates divergence of views on these items by the chairpersons who returned the questionnaire.

Correlation analysis was carried out to identify the significant (2-tailed beyond .01) and substantial associations between the variables. The following items exhibited moderately high and significant Pearson correlations with the dependent variable which was overall academic department effectiveness:

1. high research productivity (r = .69);
2. positive reputation of staff in teaching (r = .67);
3. strong faculty collegiality (r = .65);
4. faculty satisfaction with research in the department (r = .60)
5. strong commitment to department by faculty members (r = .59);

6. collaborative problem-solving by chairperson and faculty members (r = .59);
7. a positive learning climate for students (r = .58);
8. faculty satisfaction with personal and professional development (r = .58);
9. high morale among faculty members (r = .57);
10. adaptiveness of the department to changes in the environment (r = .56);
11. department's ability to resolve conflict among its members (r = .55); and
12. strong leadership within the department (r = .52).

There were also several notable associations among the specified criteria. As might be expected, the criterion that focussed on a positive learning climate for students was a relatively strong correlate of student satisfaction with academic advising in the department (.54), involvement of students in evaluation of the department (.52), and a positive reputation of staff in teaching (.51). Moreover, the criterion related to the department's ability to resolve conflict among its members had relatively high association with joint planning by chairperson and faculty members to accomplish goals (.76), strong faculty collegiality (.65), and involvement of faculty members in overall leadership of the department (.65).

On the other hand, the particularly low correlation for one item also deserves mention. The correlation coefficient for the item that dealt with the provision of job placement services for students and overall effectiveness was .01. This finding tends to suggest that the provision of job placement services for students may have had little to do with chairpersons' assessments of the overall effectiveness of their academic departments.

Differences in means of overall effectiveness, as assessed using *t*-test, were not statistically significant ($p<.01$) when departments were compared according to their number of FTEs. The cut-off point, 18 FTEs, was the mean for the 28 departments in the sample. On specific criteria, there was one item whose effectiveness means were significantly different between smaller departments (less than 18 FTEs) and larger departments (more than 18 FTEs). Ratings of chairpersons from the two groups were compared. The mean effectiveness rating for high morale among faculty was substantially higher for smaller departments (4.33) than for larger departments (3.13). A possible explanation, as suggested by Blau (1973), may be that many of the factors that affect morale such as sense of community, interaction, and supportive faculty-student relations tend to be usually associated with smaller departments.

Importance of Criteria for Academic Department Effectiveness

As already noted, the questionnaire consisted of two scales, one pertaining to the importance of specific criteria for academic department effectiveness and the other to perceived effectiveness of the departments on these criteria. In the previous section data associated with the latter were analyzed. In this section analyses were undertaken to identify the criteria selected by chairpersons as important for academic department effectiveness.

As indicated in Table 5.3, chairpersons viewed acquisition of competent faculty members as the most important criterion for the effectiveness of academic departments. This criterion had a mean rating of 4 on a scale of 1 to 4. It was the only criterion that was rated as "extremely important" by all the chairpersons who returned the questionnaire. Regarding this item, one chairperson stated that "teaching excellence and research productivity depend on superior qualifications and dedication of faculty members. An academic department is, for the most part, as effective as its faculty members."

Other criteria with high mean importance ratings included cooperative support staff in the department (3.85), high morale among the faculty members of the department (3.80), faculty members' satisfaction with personal and professional development (3.79), strong faculty collegiality (3.75), joint planning by chairperson

Table 5.3

Chairpersons' Ratings of the Importance of Department Effectiveness Criteria
(sorted by means)

			Importance		
	Criterion	**n**	**Mean**	**S.D.**	**Rank**
37.	Acquisition of competent faculty members	20	4.00	0.00	1
21.	Cooperative support staff in the department	20	3.85	0.37	2
11.	High morale among faculty members	20	3.80	0.41	3
15.	Faculty members' satisfaction with personal and professional development	19	3.79	0.42	4
2.	Joint planning by chairperson and faculty members to accomplish goals	20	3.75	0.44	6
5.	Strong faculty collegiality	20	3.75	0.44	6
10.	Adequate mechanisms of recognition and rewards for faculty members	20	3.75	0.44	6
27.	A positive learning climate for students	20	3.70	0.57	8.5
39.	Efficient use of resources	20	3.70	0.47	8.5
4.	Collaborative problem-solving by chairperson and faculty members	20	3.65	0.49	11.5
12.	Strong commitment to department by faculty members	20	3.65	0.49	11.5
41.	Department's ability to obtain research grants	20	3.65	0.76	11.5
42.	Department's ability to resolve conflict among its members	20	3.65	0.59	11.5
17.	Involvement of faculty members in departmental goal-setting	20	3.60	0.60	14.5
43.	Strong leadership within the department	20	3.60	0.60	14.5
7.	Positive reputation of staff in teaching	20	3.55	0.61	16
8.	High research productivity	20	3.55	0.69	16
36.	Acquisition of financial resources by the department	20	3.55	0.51	16
6.	Supportive faculty-student relations	19	3.53	0.70	19
14.	Faculty members' satisfaction with the research activity in the department	20	3.50	0.75	21.5
22.	High expectations held for students in the department	20	3.50	0.61	21.5
35.	Flexibility of the department's administration	20	3.50	0.51	21.5
38.	Acquisition of suitable material and physical resources	20	3.50	0.69	21.5

Table 5.3 (continued)

	Criterion	n	Importance Mean	S.D.	Rank
1.	Clear department goals	20	3.45	0.61	26
3.	Monitoring of progress to achieve department goals	20	3.45	0.51	26
29.	Student satisfaction with the formal learning experiences in the department	20	3.45	0.69	26
32.	Success record of the department's graduates	20	3.45	1.00	26
34.	Adaptiveness of the department to changes in the environment	20	3.45	0.76	26
18.	Involvement of faculty members in departmental decision-making	20	3.40	0.68	29.5
19.	Involvement of faculty members in evaluation of the department	20	3.40	0.50	29.5
13.	Faculty members' satisfaction with the teaching in the department	19	3.32	0.48	31
33.	Participative policy-making in the department	20	3.20	0.89	32
30.	Student satisfaction with academic advising in the department	20	3.15	0.99	33
40.	Department's influence in the University	20	3.10	0.55	34
16.	Honors and awards received by faculty members	20	3.00	0.73	35
23.	Communication of department goals to students	20	2.95	0.76	36
20.	Involvement of faculty members in overall leadership of the department	20	2.90	0.72	37
9.	Strong involvement of staff in service to the community	20	2.80	0.70	38
26.	Involvement of students in evaluation of the department	20	2.65	1.04	39
24.	Involvement of students in departmental goal-setting	20	2.50	0.61	40.5
28.	Provision of job placement services for students	18	2.50	1.10	40.5
25.	Involvement of students in departmental decision-making	20	2.15	0.81	42
31.	Student satisfaction with extracurricular activities in the department	18	2.11	1.02	43

Note.

1. The scale used was as follows: 1 = Not Important; 2 = Slightly Important; 3 = Moderately Important; 4 = Extremely Important.
2. The n's vary because respondents did not provide ratings for some items.
3. Means which are tied are given the same rank.

and faculty members to accomplish goals (3.75), and adequate mechanisms of recognition and rewards for faculty members (3.75).

Research- and teaching-related criteria also obtained high mean ratings on the importance scale. These included a positive learning climate for students (3.70), department's ability to obtain research grants (3.65), high research productivity (3.55), and a positive reputation of staff in teaching (3.55).

At a time when higher education institutions are increasingly being required "to do more with less" due to funding cutbacks, the criterion that dealt with efficiency—that is, efficient use of resources—also had high mean importance rating. Its mean was 3.70 with a relatively low standard deviation of 0.47 indicating a relatively higher degree of agreement among the responding chairpersons.

Criteria related to the involvement of faculty members in the leadership of the department also had high importance ratings. These were collaborative problem-solving by chairperson and faculty members (3.65), department's ability to resolve conflict among its members (3.65), and involvement of faculty members in departmental goal-setting (3.60). In an apparent reference to these three criteria, one chairperson noted that "academic departments could be managed more effectively if their missions and goals are clarified. Participation of faculty members, of course, is vital so that a general consensus is created and problems that arise solved."

Chairpersons on average perceived some criteria as less important for assessing academic department effectiveness. The criteria related to participation of students in departmental leadership obtained lower means. Involvement of students in departmental decision-making and involvement of students in goal-setting were given mean ratings of 2.15 and 2.50, respectively. Similar to the findings in the effectiveness ratings by chairpersons, involvement of students in evaluation of the department had a slightly higher mean of 2.65. However, the lowest rating in the importance for effectiveness scale was given to another student-related variable, student satisfaction with extra-curricular activities (2.11).

There is an implication that can be drawn from the relatively lower ratings of these criteria on both the degree of importance and effectiveness scales. With the probable exception of the criterion that dealt with student involvement in evaluation of the department, the other criteria may be considered as relatively less important for assessing academic department effectiveness.

Additional criteria. In addition to assigning importance and effectiveness ratings to the criteria specified in the questionnaire, seven chairpersons mentioned many additional criteria they perceived as important for assessing academic department effectiveness. Most of the suggested items had already been included elsewhere in the questionnaire, but some of the additional criteria are worthy of mention. A chairperson from a "professional department" referred to "contact with related professional organizations" and "contact with related departments" as moderately important for achieving effectiveness. Another chairperson mentioned "effectiveness at the faculty level" as extremely important for academic department effectiveness.

A third chairperson referred to the "periodic 'infusion' of new faculty members" as an important criterion for "enhancing academic department effectiveness." A chairperson in the Faculty of Science cited "up-to-date equipment and facilities, and competent technical staff" as resources of critical importance to the performance of academic departments.

Three chairpersons advanced criteria that were primarily related to teaching and research. These included "a balanced emphasis of teaching and research," "recruiting faculty members for their teaching ability and research potential," and "appropriate emphasis on different research areas." One chairperson also noted that "support by the provincial government through proper funding" as an important criterion for achieving effectiveness "in academic departments and the university as a whole." Overall, the additional items suggested by chairpersons covered areas related to staff, teaching, research, and organizational matters.

Comparison of Effectiveness and Importance Ratings

Although it was not the primary purpose of this study, one of the benefits of the effectiveness-importance comparison analysis is that it may serve a diagnostic function for determining whether departments perform best in, and perhaps also focus more effort upon, specific aspects perceived as highly important for achieving department effectiveness. The Spearman correlation analysis undertaken on the rankings of the 43 pairs of item means for the two scales indicated a high degree of positive association between the effectiveness and importance rankings by chairpersons ($r = .70$; $p<.0001$).

Table 5.4 compares the rankings of the 10 items with the highest ratings on the effectiveness scale with the 10 having the highest ratings on the importance scale.. The comparison was restricted to the top 10 items to gain some insight into the performance of academic departments in the areas that chairpersons considered to be of most consequence for department effectiveness. As the data in the table show, the range in mean effectiveness ratings for the top rated items was small. This has an implication for the ranking. For example, although the differences in the means were not substantial, 4.11 was ranked first and 3.70 was ranked 21st.

The analysis revealed many similarities and some differences in the importance and effectiveness rankings. The criterion that dealt with acquiring competent faculty members emerged not only as the item rated most important for achieving effectiveness but also as an aspect on which chairpersons assessed their departments to be highly effective. Other criteria for which there was a strong association between the importance and effectiveness rankings were joint planning by chairperson and

Table 5.4

Comparison of the Top Ten Importance and Effectiveness Criteria as Assessed by Chairpersons

Criterion	Importance Mean	Importance Rank	Effectiveness Mean	Effectiveness Rank
37. Acquisition of competent faculty members	4.00	1	4.11	1.5
21. Cooperative support staff in the department	3.85	2	4.10	3.5
11. High morale among faculty	3.80	3	3.85	11
15. Faculty member's satisfaction with personal and professional development	3.79	4	3.74	19.5
2. Joint planning by chairperson and faculty members to accomplish goals	3.75	6	4.10	3.5
5. Strong faculty collegiality	3.75	6	3.90	8.5
10. Adequate mechanisms of recognition and rewards for faculty members	3.75	6	3.70	22
39. Efficient use of resources	3.70	8.5	3.90	8.5
9. A positive learning climate for students	3.70	8.5	3.80	14.5
4. Collaborative problem-solving by chairperson and faculty members	3.65	11.5	3.90	8.5
42. Department's ability to resolve conflict among its members	3.65	11.5	3.75	17.5
12. Strong commitment to department	3.65	11.5	3.70	22
41. Department's ability to obtain research grants	3.65	11.5	3.50	31.5
17. Involvement of faculty members in departmental goal-setting	3.60	13.5	3.90	8.5
35. Flexibility of the department's administration	3.50	21.5	4.11	1.5
18. Involvement of faculty members in departmental decision-making	3.40	29.5	4.00	5
33. Participative policy-making in the department	3.20	33	3.95	6

Note. 1. The importance scale used was as follows: 1 = Not Important, 2 = Slightly Important; 3 = Moderately Important, 4 = Extremely Important.

2. The effectiveness scale used was as follows: 1 = Not Effective; 2 = Slightly Effective; 3 = Moderately Effective; 4 = Highly Effective; 5 = Very Highly Effective.

3. The n's are as presented in Tables 5.2 and 5.3.

faculty members to accomplish goals, cooperative support staff in the department, and strong faculty collegiality.

Three variables that exhibited some differences in the importance and effectiveness rankings dealt mainly with the department's leadership. Flexibility of the department's administration, involvement of faculty members in departmental decision-making, and participative policy-making in the department had effectiveness rankings of 1, 5, and 6 respectively. However, the importance rankings for the three variables were 21, 29, and 33 respectively.

Chairpersons assessed their academic departments as relatively less effective on four student-related criteria that were also perceived to be of least importance for judging the performance of departments. These criteria were related to the provision of job placement services for students, student involvement in departmental goal-setting, student satisfaction with extracurricular activities, and involvement of students in departmental decision-making.

Constraints on Academic Department Effectiveness

To obtain information regarding constraints on academic department effectiveness, provision was made for open-ended responses in the questionnaire. Many chairpersons—80% of those who provided returns—mentioned constraints that they felt were inhibiting the effectiveness of their departments.

The major constraint that was advanced by chairpersons was the inadequacy of financial, physical, and human resources. "Lack of funds" seemed to be the source of much concern for chairpersons; this constraint was mentioned by 70% of the responding chairpersons. They indicated that inadequate funding has resulted in "lack of suitable facilities and equipment," and also in "lack of competent staff." Chairpersons and, as will be seen later, faculty members and graduate students in Science and Engineering departments particularly mentioned "shortage of modern equipment and proper facilities" as a significant inhibitor of effectiveness. The reason, perhaps understandable, is that research and teaching activities in these departments generally depend upon acquisition of, access to, and use of, expensive and complex equipment.

About 30% of the chairpersons cited "shortage of competent teaching, research, and technical staff" as a major constraint on their department's effectiveness. As stated above, some viewed this area of concern as highly related to the perceived lack of adequate funding. However, acquisition of competent staff may not be totally related to inadequate funding. Even with proper funding, there are some disciplines (e.g., finance in the Faculty of Business) in which there are critical shortages of suitable candidates.

According to many of the chairpersons, effectiveness of academic departments was also said to be constrained by "the lower quality of students." One chairperson noted "lack of workaholic students" as a factor that constrained academic department effectiveness. Again, some saw this student quality problem as an undesirable effect of the current financial cutbacks. A chairperson explained that "inadequate funding has resulted in failure to attract 'quality' graduate students."

Five chairpersons mentioned "lack of support from central administration" as an inhibiting influence on academic department effectiveness. Respondents criticized central administration for "failing to provide clear goals and objectives," imposition of "administrative 'red tape' and bureaucracy," and "failure to provide vision and support."

Chairpersons also provided a number of responses which span many issues that reflect the multi-dimensional nature of the constraints on academic department effectiveness: lack of leadership, uneven and high workload, low morale of faculty members, lack of recognition of teaching, and inadequate research performance.

Finally, the constraints identified by chairpersons need to be viewed in perspective. As noted earlier, this study was undertaken at a time when the university was facing financial problems. Not surprisingly, many of the chairpersons viewed the recent cutbacks in funding as the main constraint on the effectiveness of their academic departments.

SUMMARY

Most of the chairpersons (65%) perceived their academic departments to be "highly effective." Aspects on which academic departments were rated as most effective related to acquisition of competent faculty members and flexibility of the department's administration. Other criteria that were also assigned high effectiveness ratings were strong collegiality among faculty, cooperative support staff in the department, supportive faculty-student relations, high research productivity, and positive learning climate for students in the academic department.

Assessments of academic department effectiveness were lowest for items that focussed on students' participation in the leadership of the department and students' satisfaction with extra-curricular activities in the department. However, these same criteria were also viewed to be less important for achieving better performance in academic departments. Very high importance ratings were obtained for acquisition of competent faculty members, cooperative support staff in the department, high morale among faculty, and faculty members' satisfaction with personal and professional development. Efficient use of resources, high research productivity, and the department's ability to obtain research grants were also ranked high on the importance scale. According chairpersons, notable correlates of overall effectiveness included high research productivity, a positive reputation of staff in teaching, and strong faculty collegiality.

A comparative analysis between effectiveness ratings and mean importance ratings revealed that many of the criteria on which high effectiveness had been perceived were generally those which were viewed to be most important for assessing the effectiveness of academic departments. Criteria that focussed on involvement of students in departmental goal-setting and decision-making had both lower importance and effectiveness ratings.

Chairpersons also identified an array of inhibitors to academic department effectiveness. These constraints were mainly associated with lack of adequate funding. Lack of competent faculty members, lack of "quality" students, heavy workload of faculty members, and lack of support from central administration were also cited by several chairpersons as constraining influences on academic department effectiveness.

CHAPTER 6

EFFECTIVENESS OF ACADEMIC DEPARTMENTS: FACULTY MEMBERS' PERSPECTIVES

This chapter deals with the results of the analyses of faculty members' data. As an important strategic constituency, 320 faculty members from 28 academic departments were asked to complete the questionnaire prepared for the study. The response rate was 62.8% (201). Reports of the findings from the analysis of these data are presented in this chapter. In particular, the chapter provides information relevant to the following three research questions, restated briefly, that guided the inquiry:

4. How do faculty members rate the performance of their academic departments on important aspects of effectiveness?
5. What criteria are perceived by faculty members to be the most important for assessing the effectiveness of academic departments?
6. What factors are perceived by faculty members to constrain the effectiveness of academic departments?

The presentation is similar to that of the previous chapter. Qualitative information obtained from the open-ended section of the questionnaire is interspersed within the presentation of statistical findings.

Overall and Criterion Effectiveness of Academic Departments

Faculty members' perceptions of current levels of overall effectiveness of their academic departments are summarized in Table 6.1. Slightly more than half of the respondents (51.2%) rated their departments as "highly effective." A "moderately effective" rating was provided by 33.8%, while 8.5% rated their departments to be "slightly effective."

Table 6.1

Faculty Members' Ratings of Levels of Overall Effectiveness of Their Academic Departments
(n = 197)

Level of overall effectiveness	f	%f	Cum %f
1. Not Effective	1	0.5	0.5
2. Slightly Effective	17	8.6	9.1
3. Moderately Effective	68	34.5	43.6
4. Highly Effective	103	52.3	95.9
5. Very Highly Effective	8	4.1	100.0

mean = 3.51; standard deviation = 0.73

As shown in Table 6.2, there were also some variations with regard to performance on specific criteria upon which faculty members rated their departments. On a scale of 1 to 5, academic departments obtained the highest mean ratings for having cooperative support staff (mean = 3.91), and maintaining positive learning climate for students (3.75). An output criterion, success record of the department's graduates was also rated highly (3.74). Other criteria that were highly regarded were acquisition of competent faculty members (3.65), high expectations held for students in the department (3.65), positive reputation of staff in teaching (3.55), supportive faculty-student relations (3.52), student satisfaction with the formal learning experiences in the department (3.50), high research productivity (3.49), and strong leadership within the department (3.49).

Table 6.2

Faculty Members' Ratings of the Effectiveness of Their Academic Departments on Selected Aspects

(sorted by means)

			Effectiveness		
	Department aspect	n	Mean	S.D.	Rank
21.	Cooperative support staff in the department	198	3.91	1.05	1
27.	A positive learning climate for students	196	3.75	0.82	2
32.	Success record of the department's graduates	179	3.74	0.86	3
22.	High expectations held for students in the department	195	3.65	0.88	4.5
37.	Acquisition of competent faculty members	197	3.65	1.05	4.5
7.	Positive reputation of staff in teaching	191	3.55	0.79	6
6.	Supportive faculty-student relations	197	3.52	0.88	7
29.	Student satisfaction with the formal learning experiences in the department	187	3.50	0.75	8
8.	High research productivity	197	3.49	0.98	9.5
43.	Strong leadership within the department	198	3.49	1.07	9.5
30.	Student satisfaction with academic advising in the department	174	3.43	0.84	11.5
39.	Efficient use of resources	190	3.43	0.86	11.5
1.	Clear department goals	199	3.41	0.87	13
35.	Flexibility of the department's administration	194	3.40	1.02	14
12.	Strong commitment to department by faculty members	198	3.36	0.96	15
4.	Collaborative problem-solving by chairperson and faculty members	196	3.32	1.97	16
2.	Joint planning by chairperson and faculty members to accomplish goals	199	3.30	1.03	17.5
18.	Involvement of faculty members in departmental decision-making	199	3.30	0.97	17.5
17.	Involvement of faculty members in departmental goal-setting	196	3.28	0.97	19
13.	Faculty members' satisfaction with the teaching in the department	192	3.25	0.79	20.5
14.	Faculty members' satisfaction with the research activity in the department	190	3.25	0.90	20.5
34.	Adaptiveness of the department to changes in the environment	183	3.24	0.91	22.5
41.	Department's ability to obtain research grants	195	3.24	1.07	22.5

Table 6.2 (continued)

			Effectiveness		
	Department aspect	**n**	**Mean**	**S.D.**	**Rank**
5.	Strong faculty collegiality	199	3.23	1.15	24
33.	Participative policy-making in the department	184	3.20	0.90	25
15.	Faculty members' satisfaction with personal and professional development	186	3.16	0.87	26
19.	Involvement of faculty members in evaluation of the department	187	3.13	1.03	27
42.	Department's ability to resolve conflict among its members	195	3.11	1.06	28
20.	Involvement of faculty members in overall leadership of the department	192	3.09	1.03	29
38.	Acquisition of suitable material and physical resources	193	3.06	1.05	30
11.	High morale among faculty members	196	3.00	1.04	31.5
36.	Acquisition of financial resources by the department	196	3.00	1.08	31.5
10.	Adequate mechanisms of recognition and rewards for faculty members	197	2.99	0.98	33
3.	Monitoring of progress to achieve department goals	196	2.97	0.90	34
16.	Honors and awards received by faculty members	190	2.94	0.86	35
9.	Strong involvement of staff in service to the community	186	2.86	1.00	36
23.	Communication of department goals to students	192	2.85	0.95	37
26.	Involvement of students in evaluation of the department	193	2.81	0.95	38.5
40.	Department's influence in the University	190	2.81	1.03	38.5
28.	Provision of job placement services for students	178	2.67	1.12	40.5
31.	Student satisfaction with extracurricular activities in the department	159	2.67	1.11	40.5
24.	Involvement of students in departmental goal-setting	193	2.57	1.00	42
25.	Involvement of students in departmental decision-making	194	2.52	0.99	43

Note. 1. The scale used was as follows: 1 = Not Effective; 2 = Slightly Effective; 3 = Moderately Effective; 4 = Highly Effective; 5 = Very Highly Effective.
2. The n's vary because respondents did not provide ratings for some items.
3. Means which are tied are given the same rank.

Although collaborative problem-solving by chairperson and faculty members was highly rated (mean of 3.32), it invited a wide range of responses. The standard deviation was 1.97 which indicates a relatively low degree of agreement on the assessment of effectiveness of academic departments on that aspect.

Similar to the assessments of chairpersons, faculty members viewed performance on aspects related to the involvement of students in department leadership less favorably. The lowest mean rating was given for the item that dealt with involvement of students in departmental decision-making (2.52). A related aspect, involvement of students in departmental goal-setting, also had lower mean (2.57). Other aspects with lower means dealt with student satisfaction with extra-curricular activities (2.67) and the provision of job placement services for students (2.67), and involvement of students in evaluation of the department (2.81). Faculty members also viewed their department's level of influence in the university as relatively low (2.81). Perhaps understandably, with so many departments in the university, no single department can have much influence. These aspects with lower mean ratings also invited a wide variation of responses which was reflected in the relatively higher standard deviations.

Although an extensive comparative analysis of the findings from the four constituencies will be covered in Chapter 9, there were some similarities between the perceptions of chairpersons and faculty members that are worth noting in this section. Both constituencies rated academic departments as effective on the acquisition of competent faculty members, research productivity and teaching, and participative leadership in the department. On the other hand, items that dealt with the involvement of students in departmental leadership were assigned lower effectiveness ratings by both groups.

Best Predictors of Overall Effectiveness

For the current study, the *step-wise regression* procedure of the SPSS computer program was used. The computer program associated with this procedure excludes respondents who omitted one or more responses in the questionnaire; this resulted in the reduction of the number of faculty members to 115 for the regression analysis.

The dependent variable was the criterion named "overall effectiveness" (Question 45 in the questionnaire). The remaining 43 items were treated as independent variables. At the outset, the Pearson correlations among the variables were investigated. The strongest correlation with overall effectiveness was provided by the criterion that focussed on strong leadership within the department (r = .61).

Although they did not appear in the step-wise regression procedure, the following four criteria had moderately strong Pearson correlations with overall academic department effectiveness:

1. Department's ability to resolve conflict among its members (r = .48);
2. High morale among faculty members (r = .46);
3. High expectations held for students in the department (r = .46); and
4. Acquisition of financial resources by the department (r = .45).

Acquisition of competent faculty members had a correlation of .48 with the dependent variable, overall academic department effectiveness. As will be seen in the next section, this criterion was also perceived to be the most important aspect on which an assessment of academic department effectiveness should be based. Taken collectively, these findings tended to indicate that acquisition of competent faculty members was central to the effectiveness of academic departments.

As might be expected, the item that focussed on strong faculty collegiality had relatively high Pearson correlations with aspects related to morale, commitment to department, and conflict resolution. The leading association was with the department's ability to resolve conflict among its members (.49). The other relationships were with high morale among faculty members (.44) and strong commitment to department by faculty members (.41).

Three student-related items had strong links with communication of department goals to students. These were involvement of students in evaluation of the department (.45), high expectations held for students in the department(.42), and supportive faculty-student relations (.41).

Faculty satisfaction with research in the department correlated moderately with five items. Understandably, its strongest correlates were two research-related aspects that dealt with an academic department's ability to obtain research grants (.54), and high research productivity (.54). These two variables themselves were also strongly correlated (.52). Other items that had notable correlations with faculty satisfaction with research in the department were high morale among faculty members (.49), honors and awards received by faculty members (.47), and faculty members' satisfaction with personal and professional development (.42). Consistent with the thrust of the variable, these correlations tended to indicate the centrality of research for academic department effectiveness and the logical links that exist among research grants, research productivity, morale, reward mechanisms, and personal and professional development.

As the data in Table 6.3 show, five criteria emerged as significant predictors of overall academic department effectiveness. The p-value of beyond .001 for the F-statistic indicates that the overall regression is highly significant. The coefficient of determination (R-square) was .6145. That is, 61.45% of the variation in the dependent variable (overall effectiveness) was explained by the five predictors.

The five criteria that emerged as highly significant predictors of overall effectiveness were as follows: strong leadership within the department, acquisition of competent faculty members, strong faculty collegiality, communication of department

Table 6.3

Predictors of Overall Academic Department Effectiveness as Assessed by Faculty Members

(n = 115)

R^2 = .6145 **Standard Error = .4544** **P-value = .0001**

Adjusted R^2 = 0.5968 **F = 34.75**

Predictor	Regression Coefficient Estimate	Standard Error	Beta	T-value	P-value
43. Strong leadership within the department	0.2887	0.0464	0.4047	6.222	0.0001
37. Acquisition of competent faculty members	0.1891	0.0451	0.2665	4.208	0.0001
5. Strong faculty collegiality	0.1235	0.0421	0.1965	2.933	0.0041
23 Communication of department goals to students	0.1374	0.0517	0.1716	2.658	0.0090
14. Faculty satisfaction with research in the department	0.1336	0.0518	0.1668	2.579	0.0094
(Constant)	0.6364	0.2335	—	2.725	0.0075

goals to students, and faculty satisfaction with research in the department. All had positive regression coefficient estimates.

The fitting of a multiple regression model to a sample of variables is not complete without an assessment of the sensitivity of the results in the data. The presence of multicollinearity among the variables, for example, can affect the fitted model. Given that some of the magnitudes of the Pearson correlations between pairs of the explanatory variables were high, the effect of multicollinearity cannot be discounted. This might have resulted in inflated values for the regression coefficients. However, another common effect of multicollinearity was not present. All the estimated regression coefficients were with algebraic signs expected on the basis of theoretical considerations.

Overall, the regression and correlation analyses revealed the dimensions considered to be central for academic department effectiveness. After accounting for the effect of strong leadership within the department, faculty members viewed acquisition of competent staff, strong collegiality, communication of department goals to students, and focus on research as the main predictors of overall academic department effectiveness.

Finally, the step-wise regression procedure chosen for the study does not necessarily guarantee that the "best" equation is found. Equations "almost as good" as that given above are likely to exist.

Perceptions of Effectiveness Differences Based on Personal and Professional Characteristics

Individual ratings of overall effectiveness of academic department were compared according to a number of personal and professional characteristics such as sex, age, and academic rank of faculty members. Differences of means in overall effectiveness were analyzed for statistical significance by using *t*-test (where two groups are involved) and Scheffé ANOVA test (for instances of three or more groups). But none emerged as statistically significant.

Personal characteristics of faculty members. As Table 6.4 shows, perceptions of overall academic department effectiveness did not vary significantly when respondents were grouped by sex and age. This suggested that men and women may view their departments' effectiveness in much the same way. Also, different age groups may share similar perceptions of the effectiveness of their own departments.

Professional characteristics. Faculty members who are assistant professors tended to rate the overall effectiveness of their departments slightly higher, although not significantly, than professors and associate professors. The findings are summarized in Table 6.5. Comparative analysis by the highest academic degree faculty members held was not done because almost all of the respondents had doctorates.

Academic department characteristics. As noted earlier, many studies (e.g., Blau, 1973; Bare, 1980) used the number of faculty members measured in FTEs (full-time equivalents) as an indicator of academic department size. Using the same measure, respondents' data on overall effectiveness of large and small academic departments were compared according to size by using *t*-test . However, difference in the means of the two groups was not statistically significant beyond .01.

Faculty members' perceptions of overall effectiveness were also compared for differences as they relate to an academic department's general subject area or discipline by using the Scheffé ANOVA test. Following the lead of many studies (e.g., Ell, 1988; Conrad & Blackburn, 1985), the academic departments were regrouped into five general discipline areas; these were (1) Science and Engineering; (2) Arts; (3) Business; (3) Health Sciences—including responses from Medicine, Rehabilitation Medicine, and Dentistry; (4) Education; and (5) Physical Education and

Table 6.4

Means of Overall Academic Department Effectiveness Classified by Personal Characteristics of Faculty Members

(n = 197)

Personal Characteristic	f	mean	S.D.
Sex			
1. Female	38	3.55	0.60
2. Male	159	3.50	0.75
Age			
1. Under 40	41	3.44	0.74
2. 40-49	74	3.54	0.67
3. 50 or older	82	3.51	0.79

Note. Differences of means were analyzed using Scheffé ANOVA test and *t*-test. None emerged as statistically significant beyond the prescribed levels (0.1 and 0.01).

Table 6.5

Means of Overall Academic Department Effectiveness Classified by Rank of Faculty Members

(n = 197)

Academic rank	f	Mean	S.D.
1. Professors	111	3.55	0.74
2. Associate Professors	57	3.40	0.75
3. Assistant Professors	27	3.59	0.64

Note. Differences in means were analyzed using Scheffé ANOVA test. None were significant beyond 0.1.

Recreation. For this analysis only, responses from departments in Home Economics were omitted because the number was too small.

Table 6.6 reports variations on effectiveness levels identified when data from faculty members were compared according to discipline area. The differences of means in overall effectiveness levels were not statistically significant. However, there were eight criteria on which mean ratings displayed statistically significant differences across discipline areas.

As shown in the table, academic departments related to Science and Engineering were rated relatively higher in maintaining strong collegiality among faculty members. On this aspect, these departments had significantly higher mean rating (3.61) than those academic departments in Education (2.78), and in Physical Education and Recreation (2.60). This result tended to add some support to earlier findings by Menzel (1962), Pelz and Andrews (1966), and Anderson (1970). Collectively, their findings indicated that academic departments in Science and Engineering tended to have higher collegiality and information flow because research and teaching in those departments partially depend on the maintenance of a cooperative environment.

The item that focussed on high research productivity also had significantly different means. On this item, faculty members from academic departments in the Faculty of Business and from Science and Engineering rated their departments relatively higher (4.00 and 3.94), than their colleagues in academic departments in Education (3.00), and in Physical Education and Recreation (2.93). Similarly, there was a significant difference between the means of effectiveness ratings of academic departments in Science and Engineering (3.94), on the one hand, and those in Health Sciences (3.30), in Physical Education and Recreation (2.93) and in Education (3.00), on the other.

Table 6.6

Differences in Means for Selected Effectiveness Criteria of Academic Departments Classified by Discipline Area of Faculty Members

Criterion		1 Sci. & Eng	2 Arts	3 Bus.	4 H.Sci.	5 Educ.	6 Phys.Ed.	Significantly different means
5. Strong faculty collegiality	mean	3.61	3.27	3.59	3.19	2.78	2.60	1-6, 1-5
	S.D.	1.07	0.85	1.00	1.31	0.93	1.30	
	n	54	27	17	43	27	15	
8. High research productivity	mean	3.94	3.37	4.00	3.30	3.00	2.93	3-6, 3-5;
	S.D.	0.76	0.84	0.87	1.27	0.72	0.70	1-6, 1-5, 1-4
	n	54	27	17	44	24	15	
9. Strong involvement of staff in service to community	mean	2.52	2.74	2.94	2.63	3.32	3.73	6-1, 6-2
	S.D.	0.85	0.90	0.68	1.07	0.99	1.16	6-4; 5-1
	n	48	27	16	41	25	15	
11. High morale among faculty	mean	3.69	3.15	3.29	2.88	2.73	2.72	1-6, 1-5,
	S.D.	0.76	0.72	1.05	1.29	0.87	1.10	1-4
	n	52	27	17	43	26	15	
14. Faculty members satisfaction with research in the department	mean	3.69	3.28	3.41	3.12	2.96	2.73	1-6, 1-5,
	S.D.	0.61	0.69	0.94	1.21	0.61	0.96	1-4
	n	51	25	17	42	25	15	
28. Provision of job placement services for students	mean	2.82	2.46	3.53	2.88	2.18	2.93	3-5
	S.D.	1.13	0.76	1.51	1.17	0.96	0.96	
	n	51	26	15	34	22	15	
37. Acquisition of competent faculty	mean	3.87	3.41	4.06	3.23	3.62	3.67	1-4
	S.D.	0.96	0.97	0.75	1.07	1.10	1.05	
	n	53	27	17	43	26	15	
41. Department's ability to obtain research grants	mean	3.79	3.15	3.41	3.15	2.44	2.87	1-6, 1-5
	S.D.	0.84	1.06	0.87	1.35	0.75	0.92	1-4; 3-5
	n	53	27	17	41	27	15	

Note. Statistically significant beyond the .1 level; differences of means were analyzed using Scheffé ANOVA test.

As might be expected, faculty members from academic departments in the Faculty of Physical Education and Recreation rated their departments relatively higher on the variable involvement of staff in service to the community. The obtained mean (3.73) was significantly higher than the mean for academic departments in Arts (2.74), Health Sciences (2.63), and Science and Engineering (2.52). On the same item, academic departments in Education were also rated significantly higher (3.32) than those in Science and Engineering (2.52).

Science- and Engineering-related academic departments were assessed to be relatively highly effective (3.69) on maintaining high morale among faculty members than academic departments in Health Science (2.88), Education (2.73), and Physical Education and Recreation (2.73). The findings were similar for the item that dealt with faculty members satisfaction with research in the department. On this aspect, faculty members from Science and Engineering rated their academic departments relatively higher (3.69) than did those in the Health Sciences (3.12), Education (2.96), and Physical Education and Recreation (2.73).

Although provision of job placement services to students had lower means on both the importance and effectiveness ratings, the differences in means were statistically significant for academic departments in Business and Education. Inasmuch as Business faculties typically provide active job placement services for students, it is not surprising that faculty members from Business rated their academic departments to be relatively more effective (3.23) on this aspect than did those from the other disciplines. But with only one field, specifically Education (2.18), did the difference attain statistical significance. For example, although the difference in the means for Arts and Business was substantial, it did not attain statistical significance. This surprising result may be due to the differences in the sample size.

As noted earlier, the performance of academic departments was very highly rated with respect to the acquisition of competent faculty members. This variable also emerged as one of the best predictors of overall academic department effectiveness. On this comparative analysis, the mean effectiveness ratings for the criterion were also high for all the departments classified by discipline areas. Nonetheless, there was a statistically significant difference between academic departments in Business (4.06) and Health Sciences (3.23). A possible explanation for the relatively lower effectiveness rating on the item for Health Sciences-related academic departments may be found in one of the written responses by a faculty member from a department in that discipline. He commented that,

> The best are not with us. Due to funding cutbacks, we can neither hire nor retain the best. They are either going to the South [i.e., United States] or out there [in private practice] making a lot of money. Consequently, effectiveness and international recognition are on the decline.

There were also significant differences among some of the discipline areas for another research-related effectiveness item, the department's ability to obtain research grants. Academic departments related to Science and Engineering were assessed to be more effective (3.79) than those in the Health Sciences (3.15), Education (2.44), and Physical Education and Recreation (2.87). Moreover, on the same variable, faculty members from Business perceived their academic departments' performance more favorably (3.41) than their colleagues from Education (2.44). Faculty members from Arts perceived their departments as moderately effective (3.15) on the same variable.

Importance of Criteria for Academic Department Effectiveness

One of the purposes of this study was the identification of the most important criteria for assessing the overall effectiveness of an academic department by faculty members. The highest mean rating (3.91 on a scale of 1 to 4) was assigned to the criterion named acquisition of competent faculty members. As shown in Table 6.7, high importance ratings were also given to the criteria related to acquisition of

Table 6.7

Faculty Members' Ratings of the Importance of Department Effectiveness Criteria

			Importance		
	Criterion	n	Mean	S.D.	Rank
37.	Acquisition of competent faculty members	199	3.91	0.34	1
27.	A positive learning climate for students	198	3.69	0.55	2.5
36.	Acquisition of financial resources by the department	199	3.69	0.53	2.5
21.	Cooperative support staff in the department	199	3.57	0.63	4
43.	Strong leadership within the department	198	3.56	0.68	5
11.	High morale among faculty members	200	3.53	0.64	6
38.	Acquisition of suitable material and physical resources	197	3.51	0.56	7
1.	Clear department goals	199	3.50	0.67	10
2.	Joint planning by chairperson and faculty members to accomplish goals	200	3.50	0.60	10
10.	Adequate mechanisms of recognition and rewards for faculty members	201	3.50	0.64	10
17.	Involvement of faculty members in departmental goal-setting	198	3.50	0.62	10
39.	Efficient use of resources	195	3.50	0.59	10
18.	Involvement of faculty members in departmental decision-making	200	3.49	0.67	13
7.	Positive reputation of staff in teaching	200	3.46	0.63	14
8.	High research productivity	201	3.45	0.66	15
22.	High expectations held for students in the department	199	3.44	0.59	16
4.	Collaborative problem-solving by chairperson and faculty members	199	3.43	0.75	17
42.	Department's ability to resolve conflict among its members	199	3.42	0.70	18
6.	Supportive faculty-student relations	199	3.41	0.69	19.5
15.	Faculty members' satisfaction with personal and professional development	196	3.41	0.67	19.5
41.	Department's ability to obtain research grants	197	3.39	0.67	21
12.	Strong commitment to department by faculty members	200	3.38	0.68	22
32.	Success record of the department's graduates	191	3.37	0.61	23

Table 6.7 (continued)

	Criterion	n	Importance Mean	S.D.	Rank
5.	Strong faculty collegiality	199	3.36	0.70	24
29.	Student satisfaction with the formal learning experiences in the department	194	3.35	0.62	25
34.	Adaptiveness of the department to changes in the environment	190	3.31	0.71	26
35.	Flexibility of the department's administration	199	3.27	0.63	27
14.	Faculty members' satisfaction with the research activity in the department	198	3.26	0.69	28
30.	Student satisfaction with academic advising in the department	190	3.25	0.70	29
3.	Monitoring of progress to achieve department goals	201	3.24	0.68	30.5
13.	Faculty members' satisfaction with the teaching in the department	198	3.24	0.70	30.5
33.	Participative policy-making in the department	186	3.20	0.74	32
19.	Involvement of faculty members in evaluation of the department	198	3.19	0.75	33
20.	Involvement of faculty members in overall leadership of the department	197	3.13	0.75	34
23.	Communication of department goals to students	200	3.07	0.83	35
40.	Department's influence in the University	196	3.05	0.72	36
26.	Involvement of students in evaluation of the department	200	2.69	0.83	37
16.	Honors and awards received by faculty members	198	2.63	0.75	38
9.	Strong involvement of staff in service to the community	199	2.49	0.89	39
24.	Involvement of students in departmental goal-setting	199	2.41	0.84	40
28.	Provision of job placement services for students	194	2.36	0.90	41
25.	Involvement of students in departmental decision-making	199	2.30	0.86	42
31.	Student satisfaction with extracurricular activities in the department	186	2.01	0.85	43

Note. 1. The scale used was as follows: 1 = Not Important; 2 = Slightly Important; 3 = Moderately Important; 4 = Extremely Important.
2. The n's vary because respondents did not provide ratings for some items.
3. Means which are tied are given the same rank.

financial resources by the department (3.69), a positive learning climate for students (3.69), cooperative support staff in the department (3.57), strong leadership within the department (3.56), and high morale among faculty members (3.53).

Faculty members also viewed acquisition of suitable material and physical resources as an important element to include in assessment of department effectiveness. It had a mean rating of 3.51. Five more criteria that were assigned a mean rating of 3.50 were joint planning by chairperson and faculty members to accomplish goals, adequate mechanisms of recognition and rewards for faculty members, setting clear department goals, involvement of faculty members in departmental goal-setting, and efficient use of resources.

Lowest mean importance ratings were given to the criteria that dealt with student satisfaction with extracurricular activities (2.01), involvement of students in departmental decision-making (2.30), provision of job placement services for students (2.36), involvement of students in departmental goal-setting (2.41), and strong involvement of staff in service to the community (2.49). These findings were in agreement with those from chairpersons. Both constituencies viewed the criteria that dealt with the involvement of students in departmental leadership as less important for assessing the effectiveness of academic department. In the open-ended section, a faculty member wrote that,

> A limited role for students in evaluation of the department is understandable. However, an active involvement of students in the decision-making and goal-setting processes not only is unimportant but also may hamper department effectiveness. As a transient group, the only input from students (especially graduate students) should be a representative opinion regarding the department's activities.

Additional criteria. Many faculty members (36) also advanced additional criteria they perceived to be important for assessing academic department effectiveness. "Contacts with related departments" was mentioned by five respondents as important for academic department effectiveness. However, the respondents did not clarify whether the contacts are with departments in this university or other universities. Two faculty members also noted that "department's influence within the faculty" as a "crucial variable" for department effectiveness. Two more respondents indicated that "the dean's effectiveness" and "support of the dean" as extremely important for judging the effectiveness of academic departments. Other criteria that were recorded by faculty members included "commitment to human values," "hiring of staff both for teaching ability and research productivity," " the 'quality' of both graduate and undergraduate students," and "contacts with other universities and related departments in Canada and abroad."

One faculty member stated that the criteria in the questionnaire were "comprehensive and complex"; "For me," he wrote, "an effective department is a community of highly motivated professors, and students infected with excitement and scholarship." Several faculty members gave conflicting views regarding the size of academic departments as an effectiveness variable. Some indicated that smaller departments lack, as one faculty member put it, the "critical mass" necessary to be effective. Yet, others noted that large departments were handicapped by "high student/faculty ratios," "heavy workload," and "low morale among faculty." Another faculty member referred to "diversity of experience, age, and research orientation of faculty members" as "very important for achieving academic department effectiveness."

Comparison of Effectiveness and Importance Ratings

Spearman correlation analysis undertaken on the rankings of the 43 item means on the two scales showed a relatively high degree of positive association between the effectiveness and importance ranking of the criteria by faculty members ($r = .63$; $p < .01$). This statistically significant correlation indicates that faculty members tended to judge their departments as effective on the criteria which were perceived to be important for assessing the overall effectiveness of departments, and vice versa. Table 6.8 summarizes the findings of the rankings of the ten most effective aspects and ten most important criteria for assessing the effectiveness of academic departments.

Acquisition of competent faculty members, which was earlier established as one of the best predictors of overall effectiveness, emerged not only as a highly effective aspect of the departments in the study but also as the most important criterion upon which an assessment of overall effectiveness should be based. There were also three criteria that showed relatively high importance and effectiveness rankings; these were a positive learning climate for students, cooperative support staff in the department, and strong leadership within the department.

However, three criteria were perceived as very important for the appraisal of academic department effectiveness whereas academic departments obtained lower mean effectiveness rankings on those aspects. These were acquisition of financial resources, adequate mechanisms of recognition and rewards for faculty members, and acquisition of suitable material and physical resources. Academic departments were also perceived to be lacking in an area ranked high in importance for department effectiveness. Low effectiveness ranking was given to academic departments in the maintenance of morale among faculty members. One explanation for the lower ranking is that many items were given essentially the same rating. Another explanation may be in the next statement which encapsulated an opinion expressed by many faculty members in the open-ended section of the questionnaire. One professor wrote:

> Recent cutbacks [in funding] have resulted in over-sized classes; equipment and facilities are getting older, professors are not being hired, and there is no money for graduate assistantships. As a result, it is no more an exciting place to work, and morale seems to be low.

Table 6.8

Comparison of the Top Ten Importance and Effectiveness Criteria as Assessed by Faculty Members

		Importance		Effectiveness	
	Criterion	Mean	Rank	Mean	Rank
37.	Acquisition of competent faculty members	3.90	1	3.61	4.5
27.	A positive learning climate for students	3.69	2.5	3.75	2
36.	Acquisition of financial resources	3.69	2.5	3.00	31.5
21.	Cooperative support staff in the department	3.57	4	3.91	1
43.	Strong leadership within the department	3.56	5	3.49	9.5
11.	High morale among faculty members	3.53	6	3.00	31.5
38.	Acquisition of suitable material and physical resources	3.51	7	3.06	30
2.	Joint planning by chairperson and faculty members to accomplish goals	3.50	10	3.30	17.5
10.	Adequate mechanisms of recognition and rewards for faculty members	3.50	10	2.99	33
1.	Clear department goals	3.50	10	3.43	11.5
39.	Efficient use of resources	3.50	10	3.41	13
17.	Involvement of faculty members in departmental goal-setting	3.50	10	3.28	19
7.	Positive reputation of staff in teaching	3.46	14	3.55	6
8.	High research productivity	3.45	15	3.49	9.5
22.	High expectations held for students	3.44	16	3.65	4.5
6.	Supportive faculty-student relations	3.41	19.5	3.52	7
32.	Success record of the department's graduates	3.37	23	3.74	3
29.	Student satisfaction with the formal learning experiences in the department	3.35	25	3.50	8

Note. 1. The importance scale used was as follows: 1 = Not Important, 2 = Slightly Important; 3 = Moderately Important, 4 = Extremely Important.

2. The effectiveness scale used was as follows: 1 = Not Effective; 2 = Slightly Effective; 3 = Moderately Effective; 4 = Highly Effective; 5 = Very Highly Effective.

3. The n's are as presented in Tables 6.2 and 6.7.

However, given the finding that faculty members viewed academic departments as moderately effective in maintaining high morale, the professor's statement may be too strong and not fully representative of the respondents' ratings.

Constraints on Academic Department Effectiveness

A significant number of the faculty members who returned the questionnaire—136 of the 201 respondents or 67.7%—mentioned one or more factors that they considered as constraints on the effectiveness of their departments.

For many of the faculty members who recorded constraints, cutbacks in funding were at the forefront. Financial constraints were said to have resulted in "high workload," "lack of suitable facilities and equipment," and "low morale." About 13% of the faculty members also cited "lack of competent staff" as a constraining factor to effectiveness in their departments. Understandably, this last-mentioned constraint was seen to be related to funding problems.

In a similar vein, two faculty members made a powerful argument that although an academic department faces "internal" constraints, there are "external" factors—funding-related decisions made at the faculty, university, provincial government, and even federal government levels—that "profoundly affect" academic departments. In their opinion, also shared by others, the "majority" of factors that inhibit effectiveness "stem from funding cutbacks."

Slightly over 21% of the faculty members viewed "lack of leadership" as an inhibiting influence on the effectiveness of academic departments. Many faculty members also felt "ineffective leadership at the faculty-level" and "lack of support from central administration" as areas of concern for academic departments. "Conflict among department members" was also cited by 13% of the respondents as having detrimental effect on the performance of their departments. A related but somewhat different constraint that was considered by a similar percentage of faculty members was "lack of collegiality." Another commonly advanced constraint (cited by 18% of the faculty members) was "heavy workload." Again, this constraint was viewed as an undesirable effect of funding cutbacks.

A small number (6%) mentioned "inadequate research performance" and "poor teaching performance" as inhibitors of academic department effectiveness. Other constraints recorded by faculty members were lack of supportive faculty-student relations, lack of "quality" graduate students, red tape / bureaucracy, weak relationships with similar departments, lack of recognition for "good" teaching, and uneven workload.

With one notable exception, there were no significant variations of the constraints according to faculty members' disciplinary orientation. "Lack of 'up-to-date' equipment and facilities" was widely mentioned as a constraint on effectiveness by faculty members from Science- and Engineering-related departments. Understandably, this is because teaching and research activities in these departments depend very much on the acquisition of sophisticated and expensive equipment and facilities.

Overall, faculty members shared chairpersons' concern that financial problems are imposing constraints on the performance of academic departments. As noted earlier, a possible explanation for such a widely shared concern may be the extensive coverage being given to current budgetary difficulties facing universities.

SUMMARY

More than 90% of the faculty members perceived their academic departments to be at least "moderately effective." Criteria in which academic departments were rated as most effective included maintaining positive learning climate, acquiring competent faculty members, and having cooperative support staff in the department.

Assessments of academic department effectiveness were lowest in criteria related with the participation of students in academic department leadership.

Two of the aspects in which academic department achieved high effectiveness, acquisition of competent faculty and strong leadership within the department, also emerged as the best predictors of overall effectiveness of academic departments. Other important predictors were strong faculty collegiality, communication of department goals to students, and faculty satisfaction with research in the department.

Assessments of overall effectiveness did not vary in a statistically significant manner according to certain characteristics of faculty members and academic departments. However, there were some significant differences of effectiveness levels on some criteria when academic department were classified according to discipline area. Faculty members in Science and Engineering were significantly more positive about the effectiveness of their academic departments with respect to faculty collegiality, morale, research productivity, and the capacity to obtain research grants than were those of some other departments. Ratings of effectiveness also tended to be higher among faculty members from the Faculty of Business with respect to the criteria related to research productivity and provision of job placement services for students than were the ratings of faculty members in some other departments.

The criterion that emerged as one of the best predictors of overall effectiveness, acquisition of competent faculty members, was also perceived to be the most important for assessing the effectiveness of academic departments. Other criteria that were given high importance ratings include acquisition of financial resources and positive learning climate for students. Criteria related to involvement of students in departmental decision-making and goal-setting were given low ratings. Open-ended responses contributed further to the list of effectiveness criteria. Notable additions were effectiveness at the faculty level and support from central university administration.

Moreover, faculty members mentioned an array of factors they considered to have detrimental effect on the performance of academic departments. Not surprisingly, lack of funds and lack of modern equipment and facilities were perceived by many faculty members as the major constraints on the effectiveness of their academic departments.

CHAPTER 7

EFFECTIVENESS OF ACADEMIC DEPARTMENTS: GRADUATE STUDENTS' PERSPECTIVES

In this chapter, the findings of analyses of the questionnaire data obtained from graduate students are presented. First, perceptions of graduate students regarding the overall effectiveness levels of their academic departments are reported. Second, relationship between levels of overall effectiveness and selected characteristics pertaining to students and their academic departments are described. In the third section, the best predictors of overall effectiveness are presented. Finally, graduate students' perceptions of the most important criteria for, and constraints on, the effectiveness of academic departments are detailed.

In particular, the chapter deals with the following research questions which were stated in the first chapter:

7. How do graduate students rate their academic departments on important aspects of effectiveness?

8. What criteria are perceived by graduate students to be the most important for assessing the effectiveness of academic departments?

9. What factors are perceived by graduate students to constrain the effectiveness of academic departments?

As in the two previous chapters, both quantitative data and qualitative information obtained from the open-ended section of the questionnaires are presented together in order to provide a more complete description.

Overall and Criterion Effectiveness of Academic Departments

Table 7.1 presents a summary of graduate students' perceptions of overall effectiveness of their academic departments. About 45% of the respondents rated their academic departments as "highly effective," while 27.5% of them selected "moderately effective" rating. Unlike chairpersons but similar to faculty members, 8.5% of the graduate students who responded to the questionnaire rated their academic departments as "slightly effective" and 3.0% as "not effective." A few graduate students (5.5%) indicated they had insufficient information to assess the overall effectiveness of their academic departments.

Table 7.1
Graduate Students' Ratings of Levels of Overall Effectiveness of Their Academic Departments
(n = 200)

Level of effectiveness	f	%f	Cum %f
1. Not Effective	6	3.0	3.0
2. Slightly Effective	17	8.5	11.5
3. Moderately Effective	55	27.5	39.0
4. Highly Effective	89	44.5	83.5
5. Very Highly Effective	22	11.0	94.5
6. Insufficient Information	11	5.5	100.0

mean = 3.55; standard deviation = .93

As displayed in Table 7.2, academic departments obtained highest mean effectiveness ratings on cooperative support staff in the department (3.90), high expectations held for students (3.83), research productivity (3.77), involvement of faculty members in departmental decision-making (3.69), success record of their department's graduates (3.68), acquisition of competent faculty members (3.59), a positive learning climate for students (3.55), supportive faculty-student relations

Table 7.2

Graduate Students' Ratings of the Effectiveness of Their Academic Departments on Selected Aspects

(sorted by means)

	Department aspect	n	Effectiveness		Rank
			Mean	S.D.	
21.	Cooperative support staff in the department	173	3.90	1.11	1
22.	High expectations held for students in the department	182	3.83	0.94	2
8.	High research productivity	175	3.77	0.96	3
18.	Involvement of faculty members in departmental decision-making	116	3.69	1.00	4
32.	Success record of the department's graduates	151	3.68	1.03	5
37.	Acquisition of competent faculty members	182	3.59	1.11	6
27.	A positive learning climate for students	196	3.55	1.08	7
6.	Supportive faculty-student relations	193	3.50	1.12	9
12.	Strong commitment to department by faculty members	168	3.50	1.04	9
41.	Department's ability to obtain research grants	156	3.50	1.12	9
43.	Strong leadership within the department	163	3.49	1.15	11
2.	Joint planning by chairperson and faculty members to accomplish goals	131	3.47	0.93	12
17.	Involvement of faculty members in departmental goal-setting	115	3.46	1.03	13
19.	Involvement of faculty members in evaluation of the department	107	3.44	0.99	14.5
39.	Efficient use of resources	171	3.44	0.99	14.5
14.	Faculty members' satisfaction with the research activity in the department	135	3.41	1.00	16
7.	Positive reputation of staff in teaching	183	3.38	1.04	17
11.	High morale among faculty members	175	3.37	1.05	18
38.	Acquisition of suitable material and physical resources	182	3.36	1.10	19
4.	Collaborative problem-solving by chairperson and faculty members	127	3.35	1.07	20.5
15.	Faculty members' satisfaction with personal and professional development	112	3.35	0.96	20.5
30.	Student satisfaction with academic advising in the department	185	3.30	1.03	22.5
35.	Flexibility of the department's administration	155	3.30	1.11	22.5

Table 7.2 (continued)

			Effectiveness		
	Department aspect	**n**	**Mean**	**S.D.**	**Rank**
5.	Strong faculty collegiality	156	3.28	1.19	24.5
20.	Involvement of faculty members in overall leadership of the department	127	3.28	1.02	24.5
1.	Clear department goals	154	3.25	1.05	26
36.	Acquisition of financial resources by the department	160	3.23	1.19	27
29.	Student satisfaction with the formal learning experiences in the department	187	3.21	1.00	28
3.	Monitoring of progress to achieve department goals	125	3.17	0.97	29
13.	Faculty members' satisfaction with the teaching in the department	134	3.14	0.85	30.5
16.	Honors and awards received by faculty members	127	3.14	0.97	30.5
34.	Adaptiveness of the department to changes in the environment	143	3.09	1.04	32
10.	Adequate mechanisms of recognition and rewards for faculty members	126	3.06	1.00	33
31.	Student satisfaction with extracurricular activities in the department	174	3.02	1.16	34
33.	Participative policy-making in the department	125	2.98	1.06	35
42.	Department's ability to resolve conflict among its members	114	2.95	1.19	36
40.	Department's influence in the University	141	2.79	1.14	37
9.	Strong involvement of staff in service to the community	133	2.77	1.12	38.5
28.	Provision of job placement services for students	167	2.77	1.33	38.5
23.	Communication of department goals to students	189	2.62	1.24	40
26.	Involvement of students in evaluation of the department	183	2.61	1.19	41
25.	Involvement of students in departmental decision-making	181	2.34	1.15	42
24.	Involvement of students in departmental goal-setting	182	2.33	1.20	43

Note. 1. The scale used was as follows: 1 = Not Effective; 2 = Slightly Effective; 3 = Moderately Effective; 4 = Highly Effective; 5 = Very Highly Effective.
2. The n's vary because respondents did not provide ratings for some items.
3. Means which are tied are given the same rank.

(3.50), department's ability to obtain research grants (3.50), and strong commitment to department by faculty members (3.50).

Graduate students viewed performance on some other aspects less favorably. Most notable were communication of department goals to students (2.62), involvement of students in evaluation of the department (2.61), involvement of students in departmental decision-making (2.34), and involvement of students in departmental goal-setting (2.33). Communication of department goals to students, in particular, invited responses at all levels of the scale. Slightly less than half (45%) of the graduate students assessed their academic departments as "not effective" or "slightly effective" on this aspect.

Best Predictors of Overall Effectiveness

Data from graduate students were also analyzed to identify the best predictors of overall effectiveness. Step-wise multiple regression analyses were again used.

Investigation of the Pearson correlation coefficients between the variables revealed that the strongest associations with overall effectiveness were provided by positive learning climate for students (.65), strong faculty collegiality (.64), joint planning by chairperson and faculty members to accomplish goals (.63), involvement of faculty members in decision-making (.63), faculty satisfaction with research in the department (.62), collaborative problem-solving by chairperson and faculty members (.60), flexibility of department's administration (.60), and acquisition of competent faculty (.60).

There were four items (other than overall effectiveness) that exhibited strong Pearson correlations with positive learning climate for students. These were supportive faculty-student relations (.67), high morale among faculty (.67), strong faculty collegiality (.63), and acquisition of competent faculty (.60).

Two variables that dealt with teaching also showed strong correlation with each other. The Pearson correlation coefficient between faculty satisfaction with teaching and positive reputation of staff in teaching was .62. Clear department goals was strongly correlated with joint planning by chairperson and faculty members to accomplish goals (r = .67), and with monitoring of progress to achieve department goals (r = .62).

With respect to the regression analysis, as the data in Table 7.3 show, three variables emerged as significant predictors of overall effectiveness. The p-value of beyond .001 for the F-statistic indicates that the overall regression equation was statistically significant.

Table 7.3

Predictors of Overall Academic Department Effectiveness as Assessed by Graduate Students
(n = 93)

R^2 = .6386
Adjusted R^2 = .6264
Standard Error = .5932
F = 52.42
P-value = .0001

	Predictor	Regression Coefficient Estimate	Standard Error	Beta	T-value	P-value
17.	Involvement of faculty members in overall leadership of the department	0.4013	0.0679	0.4023	5.906	0.0001
27.	A positive learning climate for students	0.3419	0.0003	0.4075	5.665	0.0001
38.	Acquisition of suitable material and physical resources	0.2430	0.0591	0.2803	4.110	0.0001
.	(Constant)	0.2935	0.2730	—	1.075	0.2852

The three best predictors were involvement of faculty members in overall leadership of the department, a positive learning climate for students, and acquisition of suitable material and physical resources. Overall, the three variables explained

63.86% of the variability in the dependent variable (overall effectiveness). Each of them was highly significant.

To summarize, the regression and correlation analyses indicated that participative leadership by chairperson and faculty members, a positive learning climate marked by collegial relations among faculty members themselves and between faculty members and students, and acquisition of suitable material, physical, and human resources were viewed by graduate students as central dimensions for overall academic department effectiveness.

The discussion on multicollinearity which was presented in the preceding chapter also holds here. Moreover, the regression equation presented above is not necessarily the "best" and other "almost as good" equations are likely to exist.

Perceptions of Effectiveness Based on Personal and Academic Characteristics

Data from graduate students were also compared according to certain personal and academic characteristics. These were sex, age, and degree program. The findings are displayed in Table 7.4.

There were no statistically significant differences in the overall effectiveness assessments in graduate students' perceptions when classified according to sex, age, size of their academic departments, and their degree program.

Discipline or subject area also seemed not to be associated with graduate students' perceptions regarding the overall performance of their academic departments. On specific items, however, there was one notable exception. Graduate students' effectiveness ratings on the aspect that focussed on the department's ability to obtain research grants were significantly different (beyond .1) across some discipline areas. On this aspect, graduate students in the departments related to Health Sciences were relatively more positive (3.67) than their counterparts in Arts

Table 7.4

Means of Overall Academic Department Effectiveness Classified by Selected Personal and Academic Characteristics of Graduate Students

Characteristic	f	mean	S.D.	Sig. diff.
Sex				
1. Female	81	3.49	0.96	–
2. Male	108	3.59	0.90	
Age				
1. Under 30	109	3.60	0.87	–
2. 30 or older	80	3.49	0.99	
Degree program				
1. Doctoral	84	3.52	1.00	–
2. Master's	104	3.57	0.87	

Note. Analyzed using *t*-test ; differences were not statistically significant (.01).

(2.46). Similarly, graduate students in Science and Engineering rated the performance of their departments on this item more favorably (3.62) than those in Arts.

Importance of Criteria for Academic Department Effectiveness

Identification of the most important criteria for assessing the overall effectiveness of academic departments, as perceived by graduate students, was one of the primary purposes of this study. The findings are presented in Table 7.5. Similar to the assessment given by chairpersons and faculty members, acquisition of competent faculty members received the highest mean importance rating (3.85). This criterion was perceived to be "extremely important" for assessing academic department effectiveness by 85% of the graduate students who returned the questionnaire. Other criteria that received very high importance ratings included positive learning climate

Table 7.5

Graduate Students' Ratings of the Importance of Department Effectiveness Criteria
(sorted by means)

	Criterion	n	Importance		Rank
			Mean	S.D.	
37.	Acquisition of competent faculty members	196	3.85	0.40	1
27.	A positive learning climate for students	199	3.78	0.50	2
36.	Acquisition of financial resources by the department	194	3.72	0.46	3
41.	Department's ability to obtain research grants	192	3.70	0.51	4
6.	Supportive faculty-student relations	198	3.63	0.56	5
21.	Cooperative support staff in the department	192	3.62	0.58	7
22.	High expectations held for students in the department	198	3.62	0.59	7
38.	Acquisition of suitable material and physical resources	195	3.62	0.57	7
7.	Positive reputation of staff in teaching	195	3.59	0.61	9
39.	Efficient use of resources	196	3.57	0.58	10
30.	Student satisfaction with academic advising in the department	199	3.55	0.61	11
1.	Clear department goals	196	3.54	0.67	12
11.	High morale among faculty members	197	3.53	0.60	13
2.	Joint planning by chairperson and faculty members to accomplish goals	191	3.52	0.64	14.5
18.	Involvement of faculty members in departmental decision-making	188	3.52	0.64	14.5
17.	Involvement of faculty members in departmental goal-setting	187	3.50	0.70	16
43.	Strong leadership within the department	194	3.49	0.69	17
4.	Collaborative problem-solving by chairperson and faculty members	185	3.48	0.61	18
8.	High research productivity	198	3.47	0.68	19
29.	Student satisfaction with the formal learning experiences in the department	199	3.46	0.62	20
12.	Strong commitment to department by faculty members	195	3.43	0.64	21
19.	Involvement of faculty members in evaluation of the department	184	3.41	0.70	22
42.	Department's ability to resolve conflict among its members	185	3.40	0.67	23

Table 7.5 (continued)

			Importance		
	Criterion	**n**	**Mean**	**S.D.**	**Rank**
15.	Faculty members' satisfaction with personal and professional development	185	3.38	0.72	24
3.	Monitoring of progress to achieve department goals	190	3.36	0.67	25.5
23.	Communication of department goals to students	199	3.36	0.72	25.5
13.	Faculty members' satisfaction with the teaching in the department	190	3.34	0.66	27.5
14.	Faculty members' satisfaction with the research activity in the department	192	3.34	0.64	27.5
5.	Strong faculty collegiality	189	3.32	0.68	29
34.	Adaptiveness of the department to changes in the environment	189	3.31	0.69	30
32.	Success record of the department's graduates	193	3.28	0.71	31
35.	Flexibility of the department's administration	195	3.23	0.72	32
26.	Involvement of students in evaluation of the department	198	3.21	0.81	33
33.	Participative policy-making in the department	184	3.19	0.72	34
20.	Involvement of faculty members in overall leadership of the department	188	3.18	0.71	35
10.	Adequate mechanisms of recognition and rewards for faculty members	185	3.13	0.72	36
40.	Department's influence in the University	191	3.06	0.74	37
28.	Provision of job placement services for students	196	2.94	0.92	38
16.	Honors and awards received by faculty members	189	2.88	0.74	39.5
24.	Involvement of students in departmental goal-setting	198	2.88	0.87	39.5
25.	Involvement of students in departmental decision-making	199	2.82	0.85	41
9.	Strong involvement of staff in service to the community	188	2.40	0.89	42.5
31.	Student satisfaction with extracurricular activities in the department	197	2.40	0.84	42.5

Note. 1. The scale used was as follows: 1 = Not Important; 2 = Slightly Important; 3 = Moderately Important; 4 = Extremely Important.
2. The n's vary because respondents did not provide ratings for some items.
3. Means which are tied are given the same rank.

for students (3.78), acquisition of financial resources (3.72), and the department's ability to obtain research grants (3.70). Teaching- and research-related outcome criteria (teaching reputation and research productivity) were also assigned high ratings (3.59 and 3.47, respectively).

Understandably, two criteria that dealt primarily with students were assigned high ratings. These were supportive faculty-student relations (3.63) and high expectations held for students in the department (3.62). Moreover, acquisition of suitable material and physical resources (3.62), cooperative support staff in the department (3.62), and efficient use of resources (3.57) were perceived by graduate students as highly important criteria on which judgement of overall effectiveness of academic departments should be based.

The criteria with the lowest mean were related to the involvement of staff in service to community and student satisfaction with extracurricular activities in the department. Their mean was 2.40. The variable that focussed on honors and awards received by faculty members had a mean of 2.88. Consistent with the assessments given by chairpersons and faculty members, graduate students also assigned lower importance ratings to criteria related to involvement of students in departmental goal-setting (2.88) and departmental decision-making (2.82).

There were no statistically significant differences in the importance ratings by graduate students when classified according to sex, age, size of their academic department,and their degree program. However, there were four criteria whose means differed significantly across the discipline areas. Academic departments related to Health Sciences obtained a higher mean importance rating (3.78) on high research productivity than those from Education (3.22). Strong involvement of staff in service to the community had a mean of 3.00 for academic departments from Education. This mean was significantly different than the means obtained for academic departments in Health Sciences (2.11), and in Science and Engineering (2.21). Similarly, departments in Education had significantly higher mean (3.88) on student satisfaction with academic advising than departments in Science and Engineering (3.41). Consistent with the perceptions of faculty members, graduate students in the faculties of Science and Engineering viewed a department's ability to obtain research grants of greater importance (3.62) for effectiveness than did graduate students in Education (3.36). On the same criterion, academic departments in Health Sciences obtained significantly higher mean importance rating (3.67) than academic departments in the Faculty of Education.

Additional criteria. As noted earlier, the questionnaire had an open-ended section that invited respondents to provide additional criteria they considered vital for assessing academic department effectiveness. Many graduate students (54) did so, and although most of the criteria forwarded were already included elsewhere in the questionnaire, there were some worthy of note. Despite the low importance ratings given to criteria related with active involvement of students in the leadership of the academic department, many respondents indicated that "a structured student input" into departmental goal-setting, decision-making and evaluation may be important for "enhancing" academic department effectiveness. For example, a graduate student wrote that,

> Most departments cannot fully function without graduate students but we are not usually treated as vital members of the department. The chairman and faculty members should meet regularly with graduate students regarding departmental policies and decisions, if for no other reason, at least to boost morale.

This sentiment among graduate students was also confirmed by the relatively high importance rating they assigned to two criteria related to communication of department goals to students (3.36) and involvement of students in evaluation of the department (3.21).

Other criteria mentioned by some graduate students (15) were "periodic recruitment of younger faculty members with new and modern approaches," acquisition of "new blood," and "getting highly-motivated and competent faculty members." Five graduate students also mentioned "quality of undergraduate and graduate students," recruitment of "excellent" graduate students, and "dedicated and hard-working" students as important "inputs" for academic department effectiveness.

Two graduate students recorded that "visionary approach to planning" and "strategic planning" as essential ingredients for academic department effectiveness. In a similar vein, a graduate student stated that "future-oriented goals to keep pace with the rapid rate of societal change" as vital for academic department effectiveness. Another called for academic departments "to tailor programs to meet changing needs in order to remain effective."

"International recognition," "links with related departments within the university and outside," and "contacts with related professional organizations" were also mentioned as important for academic department effectiveness. A department's "ability to utilize alumni as resources" was considered by a graduate student as "an inexpensive way to promote itself, obtain some grants, and enhance its effectiveness."

One graduate student's questionnaire response contained an insightful and paradoxical comment about the degree of collegiality that should prevail in academic departments. He wrote that "academia is a balance between collegiality and individualism; therefore, it is healthy if there is some conflict and 'inefficiency' as faculty members look at similar topics from different perspectives." Similarly, another graduate student remarked that "balance between 'breadth' and 'depth' in different research areas is a key element of academic department effectiveness."

Another graduate student noted that "faculty-level and university-level decisions are critical for departments, and effectiveness at those levels is of prime importance for academic department effectiveness." "Effectiveness of overall university governance" was also recorded as "essential for department effectiveness" by a respondent.

Comparison of Effectiveness and Importance Ratings

A summary of the criteria that were assigned both high effectiveness and high importance rankings is presented in Table 7.6. It is designed to provide some insight into the performance of academic departments in the domains that graduate students perceived to be of prime importance for overall effectiveness in academic departments. The Spearman correlation analysis undertaken on the rankings of the 43 item means on the importance and effectiveness scales showed a high degree of association between the two rankings ($r = 0.70$; $p<.01$). Acquisition of competent faculty members was perceived both as a domain in which academic departments were effective and also as the most important criterion for assessing the effectiveness of academic departments. Other criteria that were assigned high effectiveness and high importance rankings focussed on a positive learning climate for students, supportive faculty-student relations, the department's ability to obtain research grants, and cooperative support staff in the department.

On the other hand, the academic departments in this study were assessed to be performing in a relatively less effective way in criteria that were perceived to be important for academic department effectiveness. Consistent with the assessments given by faculty members, these criteria were acquisition of financial resources, and acquisition of suitable material and physical resources.

A few criteria were given lower means on both the importance and effectiveness scales. Most of the items were directly related to students. These included involvement of students in departmental decision-making, involvement of students in departmental goal-setting, strong involvement of staff in service to the community, and satisfaction of students with extra-curricular activities in the department.

Table 7.6

Comparison of the Top Ten Importance and Effectiveness Criteria as Assessed by Graduate Students

Criterion	Importance		Effectiveness	
	Mean	Rank	Mean	Rank
37. Acquisition of competent faculty members	3.85	1	3.59	6
27. A positive learning climate	3.78	2	3.55	7
36. Acquisition of financial resources by the department	3.72	3	3.23	27
41. Department's ability to obtain research grants	3.70	4	3.50	9
6. Supportive faculty-student relations	3.63	5	3.50	9
21. Cooperative support staff in the department	3.62	7	3.90	1
22. High expectations held for students in the department	3.62	7	3.83	2
38. Acquisition of suitable material and physical resources	3.62	7	3.36	19
7. Positive reputation of staff in teaching	3.59	9	3.38	17
39. Efficient use of resources	3.57	10	3.44	14.5
18. Involvement of faculty members in departmental decision-making	3.52	14.5	3.69	4
8. High research productivity	3.47	19	3.77	3
12. Strong commitment to department by faculty members	3.43	21	3.50	9
32. Success record of the department's graduates	3.28	31	3.68	5

Note. 1. The importance scale used was as follows: 1 = Not Important, 2 = Slightly Important; 3 = Moderately Important, 4 = Extremely Important.

2. The effectiveness scale used was as follows: 1 = Not Effective; 2 = Slightly Effective; 3 = Moderately Effective; 4 = Highly Effective; 5 = Very Highly Effective.

3. The n's are as presented in Tables 7.2 and 7.5.

Constraints on Academic Department Effectiveness

Many graduate students who returned the questionnaire mentioned one or more aspects they felt most inhibit the effectiveness of their academic departments. Of the 200 respondents, about 66% recorded wide-ranging constraints.

The constraint mentioned most frequently (59) dealt with lack of funds. Different phrases such as "budget cuts," "under-funding," and "financial problems" were stated to indicate the constraint. Many also related the constraint with "lack of money to repair ailing equipment and acquire new equipment" and "lack of budget to introduce new innovations." However, the most common concern expressed by graduate students was the negative impact of financial problems on the "morale of faculty members and students" and "size of classes." One graduate student stated that:

> Because of funding cutbacks, faculty members are severely overworked. As a result general morale is low, and some of the best faculty members at junior levels (i.e., assistant professors) are leaving to get positions elsewhere. Classes are over-crowded and quality is going down.

Besides financial problems, effectiveness of academic departments was said to be constrained by "poor" teaching performance. This was expressed in a variety of forms such as "teaching capabilities/training often overlooked," "de-emphasis of teaching component," and "indifference of faculty members to teaching responsibilities." Some also referred to lack of "collegial relations" between and among faculty members and graduate students as having detrimental effects on the performance of academic departments. Some of the expressions stated were "too much 'distance' between faculty members and students," "rivalries and suppressed antagonisms among faculty members," "unhealthy competition and conflict among faculty members," and "lack of communication amongst people from different specializations." Graduate students also cited the following constraints:

Lack of money for graduate assistantships.

Lack of competent staff in some specializations.

Failure to attract "quality" staff and students.

Failure by some faculty members to balance their teaching and research responsibilities.

Lack of mechanisms to provide input into overall university governance.

Red tape / too much bureaucratization.

Failure to provide an effective leadership by central administrators.

Weakness of faculty-level leadership.

Overall, the constraints that were provided by graduate students dealt mainly with financial and human resources. A graduate student wrote that "a department is only as good as the people involved in it. However, when staff and resources are spread thinly, it frustrates their abilities to be as effective as they wish to be."

SUMMARY

Over 55% of the graduate students who returned the questionnaire perceived their academic departments as either highly or very highly effective. Performance of academic departments was rated highly on high expectations held for students, research productivity, joint planning by chairperson and faculty members to accomplish goals, and acquisition of competent faculty members. Again, aspects that focussed on students involvement in departmental leadership were assigned low effectiveness ratings. An item that was given high effectiveness rating by chairpersons and faculty members, communication of department goals to students, was assigned lower effectiveness rating by graduate students.

Regression analysis revealed that, for graduate students, the criterion that focussed on involvement of faculty members in overall leadership of the department was the best predictor of overall effectiveness. Other predictors were a positive learning climate for students, and acquisition of material and physical resources.

Acquisition of competent faculty members was highly correlated with the dependent variable and with two of the three predictors.

Data were also compared according to various personal and academic characteristics such as sex and age of graduate students. The differences in overall effectiveness ratings were not statistically significant. However, the means for one variable differed significantly across discipline areas. On the variable related to the department's ability to obtain research grants, graduate students in Science, Engineering and Health Sciences were more positive about their departments' performance than their counterparts in Arts.

According to graduate students, acquisition of competent faculty emerged as the most important criterion for assessing academic department effectiveness. Other criteria that were assigned very high importance ratings include a positive learning climate for students, acquisition of financial resources, and supportive faculty-student relations. Consistent with the assessments provided by chairpersons and faculty members, criteria that focussed on the involvement of students in departmental goal-setting and decision-making were given lower mean importance ratings. However, the lowest rating was assigned to the criterion related to involvement of staff in service to the community.

Many graduate students also provided a variety of effectiveness criteria. These included balanced emphasis of the teaching and research components, periodic and planned recruitment of young faculty members, and links with related departments and professional organizations. Besides, graduate students mentioned many constraints on effectiveness. Financial problems and their undesirable effects were mentioned as the major constraints on academic department effectiveness.

CHAPTER 8

EFFECTIVENESS OF ACADEMIC DEPARTMENTS: DEANS' PERSPECTIVES

The findings of statistical and content analyses of the questionnaire data obtained from deans are reported in this chapter. Although their number was small, faculty deans were included in the sample because they are an important strategic constituency of academic departments. The dean level of academic administration provides a unique vantage point from which to view the entire faculty. For one thing, it is the position that enjoys contacts with faculty members, department chairpersons, fellow deans, vice-presidents and president. The perceptions of deans regarding the effectiveness criteria of academic departments are, therefore, important.

In contrast to the questionnaire given to the other constituencies, deans were asked only to rate the degree of importance of 43 criteria for assessing effectiveness of academic departments. In short, the purpose was to ascertain the criteria that are perceived to be the most important for judging the overall effectiveness of an academic department.

The chapter is arranged to provide information about the following research questions:

10. Which criteria are perceived by deans to be the most important for assessing the effectiveness of academic departments?

11. What factors are perceived by deans to constrain the effectiveness of academic departments?

To provide a more complete description of the findings, both quantitative data from the statistical analysis and qualitative information from the open-ended sections of the questionnaire are jointly presented.

Importance of Criteria for Academic Department Effectiveness

Acquisition of competent faculty members emerged as the most important criterion for the overall academic department effectiveness. As evident in Table 8.1, all of the seven deans who returned the questionnaire assigned a rating of 4.00 to the criterion. This assessment by the deans was strikingly consistent with the assessments given by chairpersons, faculty members, and graduate students. One faculty dean wrote that "an academic department is as good as its faculty members. If they are competent researchers and excellent in teaching, the department is bound to be effective."

Other criteria that obtained high means on the importance scale were criteria that dealt with strong commitment to department by faculty members, clarity of department goals, and joint planning by chairperson and faculty members to accomplish goals. All had scores of 3.86. In a comment that was apparently related to the last-mentioned criterion, a dean stated that,

> Sound planning and effective implementation are central to the effectiveness of an academic department; and these should be collaborative effort by chairpersons and faculty members. Participatory leadership and shared responsibility bring out the best in others while at the same time opening the door for future academic leaders.

Deans also gave high ratings for criteria related to participative policy-making in the department (3.83), strong leadership in the department (3.71), adequate mechanisms of recognition and rewards for faculty members (3.71), and cooperative support staff in the department (3.71). Moreover, high morale among faculty members, a positive learning climate for students, and monitoring of progress to achieve department goals were variables with a mean of 3.71. Adaptiveness of the department to changes in the environment and acquisition of financial resources had a mean of 3.67.

Criteria related to staff and students which had high mean ratings included faculty members' satisfaction with personal and professional development, satisfaction

Table 8.1

Deans' Ratings of the Importance of Department Effectiveness Criteria

(sorted by means)

			Importance		
	Criterion	n	Mean	S.D.	Rank
37.	Acquisition of competent faculty members	7	4.00	0.00	1
1.	Clear department goals	7	3.86	0.38	3
2.	Joint planning by chairperson and faculty members to accomplish goals	7	3.86	0.38	3
12.	Strong commitment to department by faculty members	7	3.86	0.39	3
33.	Participative policy-making in the department	6	3.83	0.41	5
3.	Monitoring of progress to achieve department goals	7	3.71	0.49	8.5
10.	Adequate mechanisms of recognition and rewards for faculty members	7	3.71	0.49	8.5
11.	High morale among faculty members	7	3.71	0.49	8.5
21.	Cooperative support staff in the department	7	3.71	0.49	8.5
27.	A positive learning climate for students	7	3.71	0.49	8.5
43.	Strong leadership within the department	7	3.71	0.49	8.5
34.	Adaptiveness of the department to changes in the environment	6	3.67	0.52	12.5
36.	Acquisition of financial resources by the department	6	3.67	0.82	12.5
8.	High research productivity	7	3.57	0.54	17
14.	Faculty members' satisfaction with the research activity in the department	7	3.57	0.54	17
15.	Faculty members' satisfaction with personal and professional development	7	3.57	0.79	17
17.	Involvement of faculty members in departmental goal-setting	7	3.57	0.54	17
29.	Student satisfaction with the formal learning experiences in the department	7	3.57	0.54	17
41.	Department's ability to obtain research grants	7	3.57	0.54	17
42.	Department's ability to resolve conflict among its members	7	3.57	0.54	17
5.	Strong faculty collegiality	7	3.43	0.79	23.5
13.	Faculty members' satisfaction with the teaching in the department	7	3.43	0.54	23.5
30.	Student satisfaction with academic advising in the department	7	3.43	0.79	23.5

Table 8.1 (continued)

	Criterion	n	Importance Mean	Importance S.D.	Rank
32.	Success record of the department's graduates	7	3.43	0.79	23.5
38.	Acquisition of suitable material and physical resources	7	3.43	0.79	23.5
39.	Efficient use of resources	7	3.43	0.79	23.5
4.	Collaborative problem-solving by chairperson and faculty members	7	3.29	0.49	28.5
7.	Positive reputation of staff in teaching	7	3.29	0.49	28.5
18.	Involvement of faculty members in departmental decision-making	7	3.29	0.76	28.5
22.	High expectations held for students in the department	7	3.29	0.76	28.5
6.	Supportive faculty-student relations	7	3.14	0.69	32
19.	Involvement of faculty members in evaluation of the department	7	3.14	0.90	32
20.	Involvement of faculty members in overall leadership of the department	7	3.14	0.69	32
23.	Communication of department goals to students	7	3.00	0.58	34.5
35.	Flexibility of the department's administration	6	3.00	0.63	34.5
9.	Strong involvement of staff in service to the community	7	2.71	0.49	37.5
16.	Honors and awards received by faculty members	7	2.71	0.76	37.5
26.	Involvement of students in evaluation of the department	7	2.71	1.11	37.5
40.	Department's influence in the University	7	2.71	0.49	37.5
28.	Provision of job placement services for students	7	2.14	0.69	40.5
31.	Student satisfaction with extracurricular activities in the department	7	2.14	0.69	40.5
24.	Involvement of students in departmental goal-setting	7	2.00	0.58	42.5
25.	Involvement of students in departmental decision-making	7	2.00	0.58	42.5

Note. 1. The scale used was as follows: 1 = Not Important; 2 = Slightly Important; 3 = Moderately Important; 4 = Extremely Important.
2. The n's vary because respondents did not provide ratings for some items.
3. Means which are tied are given the same rank.

of students with the formal learning experiences in the department, and faculty members' satisfaction with the research activity in the department. High research productivity and the department's ability to obtain research grants were also perceived to be highly important criteria upon which an assessment of overall academic department effectiveness should be based. All these criteria had a mean of 3.57.

One dean commented about the connection between research productivity and collegiality. He indicated that "although a certain measure of collegial environment is healthy and good for research productivity, an academic department should view diversity of perspectives as an asset rather than a liability." Another dean remarked about the role of the department's leadership in fostering collegiality. He wrote that "an effective leadership should know how to nurture a collegial environment not only among faculty members but also between faculty members and students."

Overall, 35 of the 43 criteria were given a mean importance rating of 3.00 or above on the scale of 1 to 4. This indicated that most of the criteria were considered at least as "moderately important" for academic department effectiveness. Even the criterion that dealt with the involvement of staff in service to the community—a criterion that was assigned relatively low importance rating by faculty members and graduate students—was perceived as "moderately important" by five deans and "slightly important" by two deans. Regarding the same criterion, a dean noted that "external activities and community involvement based on professional expertise and/or related to the university's public service objectives is important for the department and the whole institution."

Not surprisingly, and in line with the assessments by the other constituencies, criteria that focussed on the involvement of students in departmental leadership were given lower mean importance ratings by deans. The lowest ratings were given to the involvement of students in both departmental goal-setting and decision-making. The two criteria received a mean rating of 2.00. Other criteria that were perceived as relatively less important for overall effectiveness were provision of job placement services for students and student satisfaction with extra-curricular activities in the department. Both were rated as "slightly important" or "not important" by the majority of respondent deans. However, deans gave a slightly higher importance rating to the criterion that dealt with the involvement of students in evaluation of the department (2.71).

Additional criteria. Five of the deans who returned the questionnaire also proposed one or more additional criteria they considered as important for assessing the overall effectiveness of academic departments. Two deans mentioned "quality" and "excellence" of graduate students as "extremely important" for academic department effectiveness. Leadership-related criteria were also advanced by two deans. They mentioned "ability to lead," "clear lines of decision-making," and "openness and honesty in departmental administration" as important criteria for overall effectiveness.

"Strong relationship with related professional organizations" was recorded by a dean as "extremely important" criterion for assessing the effectiveness of academic departments. Other additional criteria stated were "support from the university administration," and "institutional support." A dean wrote, "it boils down to one thing; for academic departments to be highly effective, they should enjoy adequate institutional support and commitment."

Constraints on Academic Department Effectiveness

All seven deans who returned the questionnaire also identified one or more factors they perceived as constraints on the effectiveness of academic departments. Three deans mentioned lack of leadership as an inhibiting influence on the effectiveness of academic departments. The leadership-related constraints were stated as "ineffective leadership," "failure to include faculty members in departmental problem-solving and decision-making," and "unwillingness to adapt by leadership within a department."

Three deans viewed lack of funds as having a negative effect on the performance of academic departments. They mentioned "lack of appropriate funding," "goals beyond resource availability," and "cut-backs in funding" as areas of concern for academic departments. A related but slightly different constraint forwarded by three deans focussed on lack of suitable facilities. One of the deans remarked that "lack of funding has resulted in ill-equipped and inappropriate facilities."

Another most commonly advanced collection of constraints was related to staff attitudes. "Lack of respect for peers," "internal dissension/personality conflicts," and "lack of collegiality" were cited as factors that "severely" constrain the effectiveness of academic departments. A dean also indicated that " 'poor' morale presents a barrier to academic department effectiveness." According to another dean, "lack of congruence about goals and inadequate research performance can be damaging to a department's effectiveness." Finally, without being specific but apparently referring to the recent cutbacks in funding, a dean implicated "the provincial government for hindering operations of academic departments as well as the whole institution."

SUMMARY

Deans perceived 35 of the 43 specified criteria as on average at least moderately important for assessing the effectiveness of academic departments. Consistent with the findings from the other constituencies, deans viewed that acquisition of competent faculty members was the most important criterion upon which judgements of effectiveness should be based. Although caution should be exercised regarding the data due to the small number of deans, it was the only criterion that was assigned a 4.00 by all seven deans. Very high importance ratings were also obtained for criteria such as strong commitment to department by faculty members, clear department goals, joint planning by chairperson and faculty members to accomplish goals, and participative policy-making in the department.

Criteria related to faculty members and students also were given high importance ratings. These included high morale among faculty members, a positive learning climate for students, faculty members' satisfaction with personal and professional development, and satisfaction of students with the formal learning experiences in the department. Moreover, deans viewed research productivity and the department's ability to obtain research grants of critical importance for the effectiveness of an academic department.

Lower importance ratings were given mainly to criteria that related to the involvement of students in the overall leadership of the department. In particular, criteria that dealt with the involvement of students in both departmental goal-setting and decision-making had the lowest mean. The others dealt with the provision of job placement services for students and satisfaction of students with extra-curricular activities. However, the criterion related to the involvement of students in evaluation of the department was viewed more favorably by deans.

Open-ended responses contributed further to the list of effectiveness criteria. The merits of participatory leadership coupled with collegial environment, "quality" graduate and undergraduate students, and institutional support were some of the additional criteria suggested as important for academic department effectiveness.

All the deans who returned the questionnaire also indicated factors they considered as inhibitors to an academic department's effectiveness. Lack of effective leadership, lack of adequate funding, conflict among faculty members, and low morale were among the constraints recorded by deans.

CHAPTER 9

EFFECTIVENESS OF ACADEMIC DEPARTMENTS: MULTIPLE PERSPECTIVES

In this chapter, comparisons of the perceptions about academic department effectiveness of the selected constituencies—deans, chairpersons, faculty members, and graduate students—are presented. The purpose is to examine consistencies and differences in the perspectives of the four constituencies.

The chapter provides information relevant to the following research questions which were stated in the first chapter:

12. To what extent are the effectiveness ratings of academic departments assigned by chairpersons, faculty members, and graduate students related?

13. How do the most important criteria of academic department effectiveness vary across the four strategic constituencies?

14. To what extent are the four constituencies' perceptions of the constraints of academic department effectiveness consistent or different?

First, comparisons of overall and criterion effectiveness of academic departments are presented. These comparisons include three of the four constituencies. Deans are not included because they did not rate the effectiveness of academic departments. However, they are included in the inter-constituency comparisons regarding the most important criteria for assessing academic department effectiveness.

Second, an inter-constituency comparisons of the most important criteria for assessing the effectiveness of academic departments is presented. Differences in the perceptions expressed by the four constituencies were investigated for statistical significance using analysis of variance procedures. As in the previous chapters, written responses from the open-ended section of the questionnaire are interspersed within the presentation of the quantitative findings.

Finally, a comparative analysis of the factors that were considered as constraints on academic department effectiveness are reported.

Overall and Criterion Effectiveness of Academic Departments

The three constituencies—chairpersons, faculty members, and graduate students—that were requested to rate their academic departments generally perceived them as effective. Academic departments obtained a mean of overall effectiveness for chairpersons (3.85) which was substantially higher than that of faculty members (3.51) and graduate students (3.55). The differences in the means of overall effectiveness for the three constituencies were, however, not statistically significant.

Because chairpersons, faculty members, and graduate students rated their academic departments on the same set of specified criteria, the ratings of effectiveness means could be compared. A general pattern was for highest effectiveness ratings to be awarded by chairpersons, particularly on the variables for which chairpersons may have primary responsibility. These included, for example, items that dealt with acquisition of financial and human resources, communication of department goals to students, joint planning by chairperson and faculty members to accomplish goals, and faculty involvement in overall leadership of the academic department.

Faculty members likewise tended to perceive the performance of academic departments as highly effective on certain matters relating primarily to their own work. For example, student satisfaction with the academic advising they get from the faculty members in the department and positive reputation of staff in teaching were assigned high effectiveness ratings by faculty members. On both items, the effectiveness mean ratings given by faculty members were higher than those of chairpersons although the differences were not statistically significant.

The most notable feature of the inter-constituency analysis was the chairpersons' relatively higher effectiveness ratings on all the specific items whose differences in means were statistically significant for the three groups. Joint planning by chairperson and faculty members to accomplish goals and strong involvement of staff in service to the community provided good examples. On both variables, the means for chairpersons were substantially higher than were means for faculty members and graduate students.

Similarly, chairpersons rated their departments significantly higher than did faculty members on involvement of faculty members in both departmental goal-setting and overall leadership. The differences of means for faculty members and graduate students for the same variables, however, were not statistically significant.

As the data in Table 9.1 reveal, chairpersons' high ratings of academic department effectiveness for some variables also differed significantly from those assigned by graduate students. For example, while chairpersons tended to regard their academic departments as relatively effective in communicating department goals to students—a criterion that emerged as important for, and strongly correlated with, overall academic department effectiveness in graduate students' assessments—this was well down the list of effectiveness rankings for the graduate students themselves. Also in contrast with graduate students' perceptions, chairpersons and faculty members recorded relatively higher levels of effectiveness for aspects that focussed on participative policy-making and student satisfaction with the formal learning experiences in the department.

Other areas that exhibited significant differences of opinion by chairpersons, faculty members, and graduate students included acquisition of financial resources, morale among faculty members, and involvement of staff in service to the community.

Table 9.1

Comparison of Means of Selected Effectiveness Criteria as Assessed by Chairpersons, Faculty Members, and Graduate Students

Criterion		1 Chair-persons	2 Faculty members	3 Graduate students	Significantly different means
2. Joint planning by chairperson and faculty members to accomplish goals	mean S.D.	4.10 0.72	3.30 1.03	3.47 0.93	1-2, 1-3
9. Strong involvement of staff in service to community	mean S.D.	3.40 0.94	2.86 1.00	2.77 1.12	1-2, 1-3
11. High morale among faculty members	mean S.D.	3.85 1.04	3.12 1.04	3.37 1.05	1-2; 3-2
17. Involvement of faculty members in departmental goal-setting	mean S.D.	3.90 0.79	3.28 0.97	3.46 1.03	1-2
20. Involvement of faculty members members in overall leadership of the department	mean S.D.	3.65 0.81	3.09 1.03	3.28 1.02	1-2
23. Communication of department goals to students	mean S.D.	3.20 0.61	2.85 0.95	2.62 1.24	1-3
29. Student satisfaction with the formal learning experiences in the department	mean S.D.	3.74 0.73	3.50 0.75	3.21 1.00	1-3; 2-3
33. Participative policy-making in the department	mean S.D.	3.95 0.71	3.20 0.90	2.98 1.05	1-3; 2-3
36. Acquisition of financial resources by the department	mean S.D.	3.60 0.82	2.99 1.08	3.23 1.19	1-2

Note. 1. Statistically significant beyond the .1 level. Mean differences were analyzed using Scheffé ANOVA test.

2. The n's are as presented in Tables 5.2, 6.2, and 7.2.

Faculty members' and graduate students' effectiveness ratings did not exceed those of chairpersons by a substantial amount on any of the effectiveness criteria. This consistent directional strength of differences lent further support to the earlier conclusion that chairpersons generally viewed the performance of their academic department more positively than did faculty members and graduate students.

Although the above finding can be due to chance, another explanation may be provided by attribution theory. The difference in the perceptual assessments may be due to the relatively more knowledge of chairpersons regarding departmental activities and achievements. This view is supported by attribution theorists (e.g., Jones & Nisbett, 1971; Shaver, 1975) that incomplete information of contextual circumstances or events is likely to result in differences in perceptions.

On the other hand, there were some remarkable consistencies in the effectiveness ratings by the three constituencies. On the criterion that was perceived by the three constituencies as the most important for assessing the performance of academic departments—acquisition of competent faculty members—chairpersons, faculty members, and graduate students assigned high effectiveness ratings. Moreover, the three constituencies rated academic departments as highly effective in criteria related to research productivity, a positive learning climate for students, and high expectations held for students in the academic departments.

Chairpersons, faculty members, and graduate students were also consistent in assigning lower effectiveness ratings for variables that dealt with the involvement of students in the leadership of the academic department. These included involvement of students in both departmental goal-setting and decision-making. However, the three constituencies gave their academic departments relatively higher effectiveness ratings for the item that dealt with the involvement of students in evaluation of the department.

Importance of Criteria for Academic Department Effectiveness

Deans, chairpersons, faculty members, and graduate students were requested to express their perceptions about the importance of the same set of specified criteria for assessing the effectiveness of academic departments. The purpose was to identify and compare the most important criteria upon which an appraisal of the performance of academic departments should be based. The data in Table 9.2 provide the summary.

A noteworthy finding of this analysis was that all the constituencies viewed acquisition of competent faculty members as the most important criterion for judging the effectiveness of academic departments. Indeed, all the deans and chairpersons who returned the questionnaire assigned the highest score of 4.00 on the importance scale to the criterion while the means of the ratings by faculty members and graduate students were 3.90 and 3.85 respectively. Other criteria that were given high importance mean ratings by the four constituencies were joint planning by chairperson and faculty members to accomplish goals, strong leadership within the department, high morale among faculty members, a positive learning climate for students, acquisition of financial resources, high research productivity, efficient use of resources, and positive reputation of staff in teaching.

Most of the additional comments that were recorded in the open-ended sections of the questionnaire were also related to the above-stated criteria. Few of the statements on these highly rated criteria were confirmations of their importance for the appraisal of an academic department's performance. However, some comments discussed the relationships between the criteria. For example, in an apparent reference to the links that exist among research, teaching and competence of faculty members, a chairperson wrote that,

> It is generally true that very good teaching and high research productivity depend in part on similar conditions, notably the superior qualifications and competence of faculty members, and the serious academic environment that pervades the daily life in an academic department as well as the university.

Table 9.2

Composite Rankings of the Importance of Effectiveness Criteria by Deans, Chairpersons, Faculty Members, and Graduate Students

	Criterion	Mean	Rank
37.	Acquisition of competent faculty members	3.94	1
27.	A positive learning climate for students	3.72	2
21.	Cooperative support staff in the department	3.69	3
2	Joint planning by chairperson and faculty members to accomplish goals	3.66	4.5
36.	Acquisition of financial resources by the department	3.66	4.5
11.	High morale among faculty members	3.64	6
43.	Strong leadership within the department	3.59	7
1.	Clear department goals	3.58	8.5
12.	Strong commitment to department by faculty members	3.58	8.5
41.	Department's ability to obtain research grants	3.55	10
15.	Faculty members' satisfaction with personal and professional development	3.54	12
17.	Involvement of faculty members in departmental goal-setting	3.54	12
34.	Efficient use of resources	3.54	12
10.	Adequate mechanisms of recognition and rewards for faculty members	3.53	14
8.	High research productivity	3.51	16
38.	Acquisition of suitable material and physical resources	3.51	16
42.	Department's ability to resolve conflict among its members	3.51	16
5.	Strong faculty collegiality	3.47	18.5
7.	Positive reputation of staff in teaching	3.47	18.5
4.	Collaborative problem-solving by chairperson and faculty members	3.46	20.5
29.	Student satisfaction with the formal learning experiences in the department	3.46	20.5
3.	Monitoring of progress to achieve department goals	3.44	22
6.	Supportive faculty-student relations	3.43	23.5
34.	Adaptiveness of the department to changes in the environment	3.43	23.5

Table 9.2 (continued)

	Criterion	Mean	Rank
14.	Faculty members' satisfaction with the research activity in the department	3.42	25.5
18.	Involvement of faculty members in departmental decision-making	3.42	25.5
22.	High expectations held for students in the department	3.40	27
32.	Success record of the department's graduates	3.38	28
33.	Participative policy-making in the department	3.36	29
30.	Student satisfaction with academic advising in the department	3.35	30
13.	Faculty members' satisfaction with the teaching in the department	3.33	31
19.	Involvement of faculty members in evaluation of the department	3.29	32
35.	Flexibility of the department's administration	3.25	33
23.	Communication of department goals to students	3.09	34
20.	Involvement of faculty members in overall leadership of the department	3.08	35
40.	Department's influence in the University	2.98	36
16.	Honors and awards received by faculty members	2.81	37.5
26.	Involvement of students in evaluation of the department	2.81	37.5
9.	Strong involvement of staff in service to the community	2.60	39
28.	Provision of job placement services for students	2.50	40
24.	Involvement of students in departmental goal-setting	2.45	41
25.	Involvement of students in departmental decision-making	2.32	42
31.	Student satisfaction with extracurricular activities in the department	2.17	43

Note. 1. Computed as a mean of the means by the four constituencies.
2. Means which are tied are given the same rank.

Similarly, a faculty member noted that "even though much is said about the teaching-research dilemma, the conflict can be resolved by a balanced emphasis of both components. An academic department whose faculty members can accomplish this goal is effective." A graduate student added: "A competent faculty tends to create a climate of excellent teaching [and] lively research which is a challenging educational environment for graduate and undergraduate students." A dean also indicated:

> Qualified and dedicated faculty members who are attracted to and can obtain positions at departments and universities with good reputations probably become productive scholars. Thus, they help perpetuate the department's tradition of scholarship, which was built by earlier capable instructors and researchers.

The lowest mean importance ratings were given by all the constituencies to three criteria exclusively related to students. These aspects dealt with the involvement of students in departmental goal-setting and decision-making, and student satisfaction with extra-curricular activities. In particular, students' active involvement in the leadership of an academic department was viewed as "unproductive," "difficult to do," and "[an] activity which is not compatible with the ability and role of students" by the constituencies.

However, each constituency assigned a relatively higher importance rating to the criterion that focussed on the involvement of students in evaluation of the academic department. Graduate students in particular assigned relatively higher importance rating to this criterion than the other three constituencies. Indeed, the mean for graduate students was significantly different from the means for chairpersons and faculty members.

As indicated in Table 9.3, there were also other means in which the differences of the importance ratings by the constituencies were statistically significant beyond the .1 level of significance. Almost all the differences in means that attained statistical significance across the constituencies were among chairpersons, faculty members, and graduate students. Moreover, with the exception of one criterion, the

Table 9.3

Comparison of Means of the Importance of Selected Effectiveness Criteria as Assessed by Deans, Chairpersons, Faculty Members, and Graduate Students

Criterion		1 Deans	2 Chair-persons	3 Faculty members	4 Graduate students	Significantly different means
6. Supportive faculty-student relations	mean	3.14	3.53	3.41	3.63	4-3
	S.D.	0.69	0.70	0.69	0.58	
10. Adequate mechanisms of recognition and rewards for faculty members	mean	3.71	3.75	3.52	3.13	2-4; 3-4
	S.D.	0.49	0.44	0.64	0.72	
16. Honors and awards received by faculty members	mean	2.71	3.0	2.63	2.88	4-3
	S.D.	0.76	0.73	0.75	0.74	
23. Communication of department goals to students	mean	3.00	2.95	3.07	3.36	4-3
	S.D.	0.57	0.76	0.83	0.72	
26. Involvement of students in evaluation of the department	mean	2.71	2.65	2.69	3.21	4-2, 4-3
	S.D.	1.11	1.04	0.83	0.81	
28. Provision of job placement services for students	mean	2.14	2.50	2.36	2.94	4-3
	S.D.	0.69	1.10	0.89	0.92	
30. Student satisfaction with academic advising in the department	mean	3.43	3.15	3.25	3.55	4-2, 4-3
	S.D.	0.79	0.99	0.70	0.61	
41. Department's ability to obtain research grants	mean	3.57	3.55	3.38	3.70	4-3
	S.D.	0.53	0.76	0.67	0.51	

Note. 1. Statistically significant beyond the .1 level. Differences in means were analyzed using Scheffé ANOVA test.

2. The n's are as presented in Tables 5.3, 6.7, 7.5, and 8.1.

remaining differences were mainly due to graduate students' higher importance ratings, apparently because most of the criteria whose means differed significantly across the constituencies were student-related. On every criterion, the means for deans were not significantly different from those of the other constituencies. However, this may be due to the number of deans in the sample which is very small.

Graduate students assigned substantially higher importance ratings than did faculty members to the criteria that dealt with supportive faculty-student relations, honors and awards received by faculty members, communication of department goals to students, provision of job placement services for students, department's ability to obtain research grants. Moreover, on two criteria, the means for graduate students were different beyond the .1 significance level from those for both faculty members and chairpersons; these criteria were related to student satisfaction with academic advising in the department, and the involvement of students in evaluation of the department. With respect to the last-mentioned variable, a graduate student called for an expanded domain of the evaluation process that is restricted to teaching and usually carried out at the end of each term. She wrote that "in addition to teaching performance by professors, the evaluation should cover other broad areas such as research environment, participation in policy-making, and collective faculty-student collegiality."

Another variable with significantly different means for the three constituencies was adequate mechanisms of recognition and rewards for faculty members. Both chairpersons and faculty members assigned to the criterion relatively higher importance rating than graduate students. On the other hand, as aforementioned, graduate students assigned significantly higher importance rating to honors and awards received by faculty members. Although speculative, a possible explanation is that graduate students may have problems with assessments of organizational characteristics such as recognition mechanisms but can probably comprehend better visible and concrete outcomes such as honors, awards, and research grants received by faculty members.

Despite these differences, the comparison of importance ratings by deans, chairpersons, faculty members, and graduate students needs to be viewed in perspective. The four constituencies considered most of the criteria important for assessing academic department effectiveness. There was also a notable consistency in the importance rankings by the four constituencies. This is confirmed by the high Pearson correlation coefficients displayed in Table 9.4.

As the data in the table show, the strongest correlation was between the ratings of chairpersons and faculty members (r = .94). Also, faculty members' importance ratings were strongly associated with those of deans and graduate students (r = .90 in each case). As might be expected, the correlation coefficient between the ratings given by deans and chairpersons was also high. Relatively lower correlation coefficients were obtained for graduate students' ratings with those given by deans and chairpersons although the correlation coefficients of .76 and .79 still represent a high degree of association in the importance ratings.

Table 9.4

Pearson Correlation Coefficients Between the Means in Importance Ratings by Deans, Chairpersons, Faculty Members, and Graduate Students

	Chairpersons	Faculty members	Graduate students
Deans	.88	.90	.76
Chairpersons		.94	.79
Faculty members			.90

Note. All coefficients were statistically significant beyond the .01 level.

However, the relationships of the perceived effectiveness levels of academic departments given by chairpersons, faculty members, and graduate students were slightly different than those presented above. (As noted earlier, deans were not requested to rate effectiveness levels of academic department.) The findings are summarized in Table 9.5. Effectiveness ratings assigned by faculty members were more strongly associated with the ratings given by graduate students (r = .85) than with those given by chairpersons (r = .73). The correlation coefficient between the effectiveness assessments given by chairpersons and graduate students was 0.77. Again, these correlation coefficients need to be viewed in perspective. In terms of their absolute value, the correlation coefficients reveal a fairly strong association in the effectiveness ratings given by the three constituencies.

Table 9.5

Pearson Correlation Coefficients Between the Means in Effectiveness Ratings by Chairpersons, Faculty Members, and Graduate Students

	Faculty members	Graduate students
Chairpersons	.73	.77
Faculty members		.85

Note. All were statistically significant beyond the .01 level.

There were also similarities in the additional effectiveness criteria submitted by constituencies. Criteria that were commonly forwarded by the four groups included "quality of both graduate and undergraduate students," "strong relationships with related academic departments and professional organizations," and "effectiveness at both the faculty and university levels." Moreover, "strategic planning" was mentioned as important for academic department effectiveness by members of each constituency. Respondents viewed strategic planning as a "mechanism to design and implement future-oriented goals," and "a process that enables the academic department to tailor programs [that] meet changing societal needs."

Chairpersons, faculty members, and graduate students referred to "periodic and planned 'infusion' of new faculty members" as an important criterion for achieving overall academic department effectiveness. Moreover, the three constituencies agreed that "up-to-date facilities and equipment" are of critical importance for the performance of academic departments. Not surprisingly, the last-mentioned criterion was frequently cited in reference to Science- and Engineering-related academic departments.

Chairpersons and graduate students, in particular, stated many criteria that were related to teaching and research. These included "appropriate balance between 'breadth' and 'depth' in different research areas," "a balanced emphasis of teaching and research," and "hiring of faculty members for teaching ability and research potential." In a similar vein, a chairperson wrote that "institutional policies should be modified to abolish the differences in academic status and rewards between research and teaching."

Two deans and three chairpersons remarked that "external" factors such as "support and commitment by the provincial government as well as the federal government," and "public support" as important for "enhancing" the effectiveness of academic departments and the university as a whole. A related but somewhat different item was proposed by a graduate student. He mentioned, "ability to utilize alumni as resources" as "important for an academic department to obtain grants and promote itself."

Chairpersons, faculty members, and graduate students expressed conflicting views regarding the size of an academic department as an effectiveness variable. Understandably, groups from the smaller departments indicated that the lack of "critical mass" as hampering effectiveness. They noted that smaller academic departments tended to have "less influence," "lack of competent faculty members in certain areas," and, as a result, "fewer number of courses to choose from." On the other hand, groups from the larger academic departments tended to view size as having a negative effect on the performances of their departments. They noted that large size was generally associated with "high student/ faculty ratios," "higher workload," "low morale among faculty members," and "the ill effects of bureaucratic rigidity which usually inhibit innovation and impede academic performance." Two faculty members, however, listed factors such as the diversity of experience, age, research orientation, and specialization areas of both faculty members and students in large departments as "very important for achieving effectiveness."

Members from the four constituencies agreed that "democratic," "participatory," and "well-defined, open, and clearly-understood" decision-making processes are critical for the performance of academic departments. Many graduate students, in particular, referred to the need for incorporating their opinions in the decisions made by the leadership of the academic department. However, one chairperson indicated that "democratic decision-making usually entails costs in time and effort," and added that "[it] may not be critical for the performance of an academic department, especially research."

Overall, comparison of the additional criteria contributed by deans, chairpersons, faculty members, and graduate students highlighted the breadth of all four constituencies' perspectives of academic department effectiveness. The criteria dealt with the quality of faculty members and students, academic department governance, teaching and research. There were no major differences in the criteria forwarded by the constituencies.

Constraints on Academic Department Effectiveness

Members of the four constituencies forwarded a wide range of factors they considered as inhibitors of academic department effectiveness. Because they were the largest groups of respondents, most of the constraints were proposed by faculty members and graduate students. The constraints were mainly related to financial resources, faculty members' and students' characteristics, and departmental leadership.

All the constituencies acknowledged financial problems as the major constraint on the performance of academic departments. Many undesirable effects on the performance of academic departments were attributed to the current inadequacy of funds and cutbacks. Faculty members and graduate students noted the resultant "higher student/faculty ratio," "high workload," "low morale," and "lack of money to repair equipment and buy new ones." A faculty member indicated that "as a result of the cutbacks, facilities and equipment are becoming outdated or inadequate," and added that the problem is leading to "both technological and professional obsolescence." Faculty members and graduate students from Science- and Engineering-related departments were more concerned with the lack of suitable facilities and equipment. Another funding-related problem that was commonly mentioned by members of the constituencies dealt with the lack of competent staff in specialized areas.

Chairpersons, faculty members, and graduate students viewed "lack of effective leadership at the faculty- and university-level" as inhibiting influences on the effectiveness of their academic departments. Many also cited factors which are "external" to the academic department such as "funding-related decisions by the provincial government," and "institutional and public support" that critically affect its performance. Many faculty members and graduate students also mentioned "lack of leadership within the department" as a constraint.

Other inhibitors of academic department effectiveness that were advanced by chairpersons, faculty members, and graduate students dealt with "lack of collegiality," "conflict among faculty members," and "lack of respect among peers." Graduate students, in particular, also mentioned "lack of supportive and cooperative relations between graduate students and faculty members" as a barrier to effectiveness.

Moreover, many graduate students cited "poor teaching performance," "indifference of faculty members to teaching responsibilities," and "de-emphasis of the teaching component" as troublesome aspects of some academic department. This view was also shared by a few faculty members. "Inadequate research performance" was also commonly cited by members of both constituencies as a constraint on academic department effectiveness.

Chairpersons shared faculty members' perceptions in noting that improvement in performance can be impeded by a poor "quality" of both graduate and undergraduate students. Both constituencies mentioned lack of workaholic students as a major constraint. A more surprising finding was that many graduate students also shared this perception. However, many graduate students also mentioned "lower quality" of some faculty members as a constraint on effective performance.

Other personal and professional deficiencies of faculty members were also common concerns among deans, chairpersons and faculty members. These included lack of commitment, "unhealthy" competition among faculty members, and cynicism. Some faculty members agreed that lack of commitment can have a detrimental effect on the performance of an academic department. In a similar vein, an interesting comment was made by a faculty member. Although he consented with the view that lack of commitment can have a negative impact on effectiveness, he observed that "generally, faculty members who have superior achievements and are greatly involved in research are less committed to their academic departments than others, but their presence strengthens the commitments of others." The professor also indicated that he was more commited to his discipline than to his academic department. However, the high rating given by faculty members to commitment to their department (mean = 3.50) indicates that the professor's view is not widely shared by others.

There were also organizational constraints that were commonly mentioned by members of the four constituencies. Faculty members and graduate students expressed conflicting views regarding the effect of size on the performance of their academic departments. All the constituencies cited lack of visionary and future-oriented planning, and failure to adopt strategic planning at the department level as constraints on effectiveness. Faculty members and graduate students also indicated "red tape / bureaucracy" as a constraining factor on academic department effectiveness.

Generally, members of the four constituencies shared many of the concerns that affect the performance of academic departments. As might be expected, faculty members and graduate students mainly emphasized aspects related to teaching and research. Deans and chairpersons, on the other hand, focussed more on organizational issues. Financial problems and inadequacy of other resources were common concerns for all the constituencies.

SUMMARY

Chairpersons, faculty members, and graduate students generally perceived their academic departments as effective. Chairpersons' ratings of the overall effectiveness of their departments was the highest, well above the mean rating of graduate students, and faculty members' ratings were even slightly lower. However, none of the differences were statistically significant beyond the .01 level. This trend also characterized many of the responses about effectiveness on the individual criteria investigated. Chairpersons' assessments were significantly higher than those of faculty members and graduate students on participatory decision-making and policy-making, communication of department goals to students, and acquisition of financial resources.

Faculty members rated their academic department relatively higher than the other groups on some criteria that were primarily related to teaching and student satisfaction with academic advising. Although graduate students' ratings were generally higher than those of faculty members, there were some exceptions. On the item communication of department goals to students, for example, the ratings given by graduate students were the lowest. However, the mean differed significantly only from the one given by chairpersons.

There was a higher degree of agreement among the four constituencies in the importance ratings of the specified criteria. The most remarkable finding was that the criterion that dealt with the acquisition of competent faculty members emerged as the most important aspect upon which appraisal of the performance of academic departments should be based. Other highly rated criteria included joint planning by chairperson and faculty members to accomplish goals, high research productivity, and positive reputation of staff in teaching.

All the constituencies assigned lower importance ratings to criteria that focussed on the participation of students in departmental leadership. However, all the constituencies agreed that involvement of students in evaluation of the department was important for academic department effectiveness. Understandably, graduate students' importance rating of this variable was the highest among the four constituencies.

Overall, relatively high correlation coefficients among the means for each variable confirmed the consistency shown in the importance ratings assigned by the four constituencies. Even for the criteria that were given low importance ratings, there was a remarkable agreement in the assessments given by all the constituencies. The strongest association in the ratings was between chairpersons' and faculty members' perceptions.

Many members of the four constituencies also provided additional criteria they considered important for academic department effectiveness. These included the quality of students, effectiveness at the faculty and university levels, and institutional support. Graduate students, in particular, mentioned appropriate emphasis and recognition of teaching as an important element for academic department effectiveness.

Finally, all the constituencies referred to a range of constraints on academic department effectiveness. These included lack of financial and physical resources, conflict among faculty members, ineffective leadership at the department and higher levels, bureaucratic rigidities, and undemocratic decision-making processes.

CHAPTER 10

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter presents an overview of the study, a summary of the research design and methodology, a summary of the major findings, and a discussion of the findings. Finally, the implications of the study for practice, theory, and research are discussed.

Overview of the Study

A major objective of the study was to conduct an examination of the most important criteria used to assess the effectiveness of academic departments by four selected constituencies—deans, chairpersons, faculty members, and graduate students. The particular purposes of the study were as follows: (a) to assess the performance of academic departments as perceived by chairpersons, faculty members, and graduate students; (b) to identify the most important effectiveness criteria of academic departments as perceived by deans, chairpersons, faculty members, and graduate students; (c) to investigate the similarities and differences in the constituencies' perceptions of the most important effectiveness criteria; (d) to explore possible relationships among criteria associated with academic department effectiveness; and (e) to identify and compare the perceived constraints on the effectiveness of academic departments.

Fourteen research questions were formulated to address the particular purposes of the study and to serve as a guide to the inquiry.

Significance of the Study

The study was justified mainly on three grounds. Theoretically, effectiveness is considered as the ultimate variable of organizational models. But despite many research studies, and other scholarly and practical works, there is still little agreement on how effectiveness can be defined, assessed, and perhaps more important, what distinguishes effective organizations from ineffective organizations. With regards to higher education institutions and academic departments, the problem is even more acute because only few studies have been conducted. Effectiveness of academic departments, therefore, appears to be an important area of research. Second, to improve the performance of academic departments, it is necessary to identify the main effectiveness criteria as a first step. In doing this, the perceptions of deans, chairpersons, faculty members, and graduate students are important. Third, the need to assess universities and their academic departments is important because it is increasingly being mandated by government officials, senior university administrators, resource granting agencies, and the public.

Research Design and Methodology

A review of the relevant literature, a series of preliminary interviews, and two pilot studies served as bases for the development of the questionnaire that was used to obtain responses from deans, chairpersons, faculty members, and graduate students in the 11 departmentalized faculties and 28 academic departments at the University of Alberta. The response rates for deans, chairpersons, faculty members, and graduate students were 64%, 71%, 63%, and 68% respectively.

The data were analyzed using statistical techniques and content analysis. Descriptive statistical methods (means and standard deviations) were used to analyze the findings and inferential statistical procedures (analysis of variance, regression analysis, and correlational analysis) were used to examine and compare the responses of the four constituencies. Responses obtained from the open-ended sections of the questionnaire were subjected to content analysis and recorded in detail where appropriate.

SUMMARY OF THE FINDINGS

This section contains the major statistical findings and patterns in the perceptions obtained from the open-ended responses. First, the findings from the four constituencies' responses are presented. This is followed by a comparison of the constituencies' perceptions regarding the effectiveness criteria of academic departments.

Effectiveness of Academic Departments

Most chairpersons perceived their academic departments as "highly effective." None of them assigned the ratings of "ineffective" or "slightly effective." Assessments of academic departments on specific items, however, showed some variety. Chairpersons' ratings were relatively higher for items dealing with joint planning by chairperson and faculty members to accomplish goals, acquisition of competent faculty members, cooperative support staff in the department, strong faculty collegiality, high research productivity, and positive reputation of staff in teaching.

Other aspects that were also associated with high effectiveness means included supportive faculty-student relations, efficient use of resources, and a positive learning climate for students. Generally, academic departments were rated lower than the midpoint of 3 on only 3 variables. On the other 40 criteria, most of the ratings were at the upper end of the scale. Items that were assigned relatively lower effectiveness ratings dealt mainly with the participation of students in departmental leadership. Specifically, they related to the involvement of students in departmental decision-making, goal-setting, and evaluation.

Slightly more than half (52%) of the faculty members who returned the questionnaire rated their academic departments as "highly effective." In contrast to chairpersons' assessments, however, about 9% of faculty members rated their departments as "slightly effective" or "not effective." With regard to performance on specific variables, faculty members' ratings were highest on maintaining a positive learning climate, acquisition of competent faculty members, cooperative support staff, and positive reputation of staff in teaching.

Other items that were assigned high effectiveness ratings included high research productivity, strong leadership within the department, and student satisfaction with the formal learning experiences in the department. The only variables that were assigned higher effectiveness ratings by faculty members than by chairpersons were student satisfaction with academic advising in the department, and positive reputation of staff in teaching. A possible explanation may be that faculty members consider these areas related primarily to their own work. However, the differences in means were not statistically significant at the .1 level of significance.

Faculty members also tended to share the perceptions of chairpersons that the academic departments were generally less effective on the criteria that dealt with involvement of students in departmental leadership. Faculty members assigned the lowest effectiveness mean rating to the involvement of students in departmental decision-making. The performance of academic departments on a related variable, involvement of students in departmental goal-setting, was also viewed less favorably.

Data on overall effectiveness were compared according to personal and professional characteristics such as sex and age of faculty members. Despite some differences, none of them were statistically significant. On specific effectiveness criteria, there were some significant differences when the responses were compared according to faculty members' discipline or subject area. The general pattern of the differences was that faculty members in Science- and Engineering-related departments tended to assign relatively higher effectiveness ratings than their colleagues from academic departments in Education, and Physical Education and Recreation. Effectiveness ratings for the items related to strong faculty collegiality, for example, were significantly higher for academic departments in Science and Engineering than the other two faculties. Although the importance of collegiality for all academic departments cannot be underestimated, a possible explanation may be that most research and teaching activities in Science and Engineering tended to depend at least partially on the maintenance of a collegial environment. Other variables with significantly different means among the above-mentioned discipline areas included high morale among faculty, satisfaction of faculty members with research in the department, and the department's ability to obtain research grants.

Faculty members from academic departments in Science and Engineering also assigned relatively higher effectiveness ratings than their colleagues in Physical Education and Recreation, and Health Sciences on high research productivity. On the same variable, the ratings by faculty members in Business were relatively higher than those in Education, and Physical Education and Recreation. Provision of job placement services for students was also rated relatively higher in academic departments from Business than from Education.

Faculty members from departments in Physical Education and Recreation assigned relatively higher effectiveness ratings to the item that dealt with service to the community than did those from Science and Engineering, Health Sciences, and Arts. Moreover, the variable was also rated significantly higher by faculty members in Education than by their colleagues in Science- and Engineering-related academic departments.

To probe the central dimensions of effectiveness in academic departments, data from faculty members were also analyzed using multiple regression techniques. Five criteria that emerged as predictors of overall effectiveness were strong leadership within the department, acquisition of competent faculty members, strong faculty collegiality, communication of department goals to students, and faculty satisfaction with research in the department.

There were also many variables that emerged as strong correlates of these predictors and the dependent variable (overall effectiveness). These included high morale among faculty, high expectations held for students in the department, acquisition of financial resources, high research productivity, and joint planning by chairperson and faculty members to accomplish goals.

To summarize, the regression and correlation analyses revealed the dimensions considered by faculty members to be central for academic department effectiveness. Data from faculty members revealed participative leadership, acquisition of competent faculty members, acquisition of financial resources, strong collegiality, and high research productivity as the main predictors and strong correlates of overall academic department effectiveness.

Graduate students assigned slightly higher overall effectiveness ratings to their academic departments than did faculty members. About 65% of them rated the performance of their departments as "highly effective" or "very highly effective." However, unlike chairpersons and faculty members, a relatively higher number of graduate students (11.5%) rated their academic departments as "not effective" or "slightly effective," and 5.5% of them indicated they had insufficient information to assess the overall effectiveness of their departments.

On specific items, highest ratings were assigned to high expectations held for students, research productivity, joint planning by chairperson and faculty members to accomplish goals, and acquisition of competent faculty members. Other variables that were assigned high effectiveness ratings focussed on the success record of graduates, and supportive faculty-student relations. Consistent with the assessments given by chairpersons and faculty members, graduate students also assigned lower effectiveness ratings to criteria related to the involvement of students in departmental decision-making and goal-setting. However, in a departure from chairpersons and faculty members, graduate students also assigned lower effectiveness rating to the item that dealt with communication of department goals to students. The difference in means between the ratings of chairpersons and graduate students was statistically significant beyond the .1 level. On the other hand, this variable was assigned high importance rating by graduate students. This suggests that communication of department goals to students may be an area of possible focus for improvement.

Using the data from graduate students, regression analysis indicated that involvement of faculty members in overall leadership of the department, a positive learning climate for students, and acquisition of suitable material and physical resources were the best predictors of overall academic department effectiveness. A common and strong correlate of the predictors as well as the dependent variable, overall effectiveness, was acquisition of competent faculty members. Three criteria that exhibited moderately high association with some of the predictors and overall effectiveness were strong faculty collegiality, high morale among faculty, and strong leadership within the department. As might be expected, high research productivity was also strongly correlated with the ability of the department to obtain research grants.

Using analysis of variance, data from graduate students were also compared according to certain personal and academic department characteristics. There were no statistically significant differences in the overall effectiveness assessments when compared according to graduate students' age, sex, size of academic departments, degree program, and discipline area. Many of the differences for specific items were not substantial. One criterion, the department's ability to obtain research grants, had significantly different means across discipline areas. On this criterion, graduate students in Health Sciences, and Science and Engineering rated their departments significantly higher than did those from Arts. This trend was similar to the assessments given by faculty members.

Generally, the study revealed that chairpersons' assessments of their academic departments were relatively higher than the ratings by faculty members and graduate students. Although not statistically significant, the ratings of overall effectiveness were indicative of the general pattern. For chairpersons the mean rating was 3.85, for graduate students it was 3.55, and for faculty members it was 3.51.

Faculty members' effectiveness ratings were associated relatively more strongly with the ratings assigned by graduate students ($r = .85$) than with those given by chairpersons ($r = .73$). The correlation coefficient between chairpersons' and graduate students' assessments was 0.77. The correlation coefficients tended to indicate a fairly strong association in the three constituencies' effectiveness ratings.

Importance of Criteria for Effectiveness

All the constituencies—deans, chairpersons, faculty members, and graduate students—perceived the criterion dealing with acquisition of competent faculty as the most important aspect for assessing the effectiveness of academic departments. All the deans and chairpersons who returned the questionnaire assigned a rating of "extremely important" to this criterion. Members of all the constituencies provided comments that were related to the variable. A typical comment was by a chairperson who wrote that "qualified and dedicated faculty members are the main ingredients of an effective academic department."

Other criteria with high mean importance ratings included strong commitment to the department by faculty members, clarity of goals, and joint planning by chairperson and faculty members to accomplish goals. Strong leadership within the department, adequate mechanisms of recognition and rewards for faculty members, high morale among faculty, and a positive learning climate for students were also viewed to be of critical importance for the effectiveness of academic departments. In the open-ended sections of the questionnaire, two deans commented about a department's leadership role in nurturing a collegial environment not only among faculty members but also between faculty members and graduate students.

There were four criteria that deans perceived as relatively less important for assessing the overall effectiveness of academic departments. These dealt with the involvement of students in both departmental decision-making and goal-setting, provision of job placement services for students, and student satisfaction with extra-curricular activities in the department. Involvement of students in evaluation of the department, however, was assigned slightly higher ratings by deans.

Most of the deans who returned the questionnaire also mentioned criteria they considered as important for academic department effectiveness. Commonly mentioned aspects were institutional support, effectiveness at faculty- and university-level, quality of both graduate and undergraduate students, and strong links with related departments and professional organizations.

As mentioned above, chairpersons assigned the highest importance ratings to the criterion that focussed on acquisition of competent faculty members. Other criteria that were perceived to be of critical importance for academic department performance included high morale among faculty, satisfaction of faculty members with personal and professional development, and strong faculty collegiality. High research productivity, the department's ability to obtain research grants, and student satisfaction with the formal learning experiences in the department were also rated high by chairpersons on the importance scale.

Chairpersons also shared deans' views in assigning low importance ratings to three student-related criteria. These were involvement of students in both departmental goal-setting and decision-making, and student satisfaction with extracurricular activities. However, the role of students in evaluation of departments was viewed more favorably by chairpersons.

In the open-ended sections of the questionnaire, two chairpersons called for the term-end evaluations that are usually restricted to teaching to be expanded to cover department-wide aspects such as collegiality, learning climate, and overall leadership within the department.

Additional criteria that were considered critical for the performance of academic departments included strong links with related departments and professional organizations, and effectiveness at the faculty level. Other comments clarified and explained the relationships among some of the criteria. One chairperson, for example, wrote about the association that usually exists among good teaching, high research productivity, and the qualifications and competence of faculty members.

In the view of chairpersons, academic departments were assessed to be effective on most of the criteria with high importance ratings. These included acquisition of competent faculty members, joint planning by chairperson and faculty members to accomplish goals, and strong faculty collegiality. On the other hand, academic departments were less effective on two important criteria that dealt with faculty members' satisfaction with personal and professional development, and adequate mechanisms of recognition and rewards for faculty members. Moreover, criteria that focussed on student involvement in departmental leadership were assigned lower importance as well as lower effectiveness ratings.

Faculty members also assigned the highest importance ratings for the criterion dealing with acquisition of competent faculty. Other criteria that were rated highly on the importance scale included acquisition of financial resources, a positive learning climate for students, and high morale among faculty. Moreover, acquisition of suitable material and physical resources, and collaborative planning by chairperson and faculty members were viewed as important elements to include in assessments of academic department effectiveness.

In a pattern that was similar to deans' and chairpersons' assessments, lowest mean importance ratings were assigned to criteria that dealt with involvement of students in departmental decision-making and goal-setting, and student satisfaction with extra-curricular activities. Provision of job placement services for students was also given lower rating. Some faculty members suggested that faculties and the university as a whole should assume the responsibility for the provision of such services. It has to be noted however, that faculties have different approaches for this aspect. Some (such as Business and Engineering) have more active job placement services than do others.

Many faculty members also provided additional criteria. These included stronger contacts with related departments, support of the dean, institutional support, and quality of graduate and undergraduate students. Conflicting views were presented regarding possible relationships between an academic department's size and effectiveness. Some indicated that smaller departments lack the "critical mass" necessary to be effective. On the other hand, faculty members noted that large departments were usually handicapped by high student/faculty ratios, heavy workload, and low morale among faculty. These problems, however, are not restricted to large departments.

Comparison of faculty members' effectiveness and importance rankings indicated a moderately strong association ($r = .63$; $p<.01$). In particular, important criteria that were identified in which academic departments were perceived to be effective included acquisition of competent faculty, a positive learning climate for students, and strong leadership within the department. However, academic departments were relatively less effective in some important areas such as acquisition of financial and physical resources. Criteria that dealt with involvement of students in leadership of departments were assigned low importance and low effectiveness ratings.

Graduate students also shared the assessments of the other three constituencies in assigning the highest importance ratings to acquisition of competent faculty members. Other variables that scored high in the importance scale included a positive learning climate for students, acquisition of financial resources, and the department's ability to obtain research grants. Two outcome criteria related to teaching and research (positive teaching reputation and high research productivity) were also assigned high importance ratings.

As might be expected, variables that were primarily student-related also received relatively high importance ratings. These were high expectations held for students, and supportive faculty-student relations. Criteria that were given lower ratings included involvement of students in departmental goal-setting and decision-making, and student satisfaction with extra-curricular activities. In a pattern that was similar to the assessments by the other constituencies, graduate students assigned relatively higher ratings to the variable that dealt with the involvement of students in evaluation of the department.

The lower ratings assigned to aspects that focussed on the involvement of students in departmental leadership need to be viewed in perspective. In the open-ended sections of the questionnaire, many graduate students noted the importance of structured student input for the major policies and decisions that shape the activities of academic departments. Additional items mentioned by graduate students were quality of students, visionary and future-oriented planning, links with related departments and professional organizations, ability to utilize alumni, and effectiveness of faculty and university administration.

The Pearson correlation coefficient between graduate students importance and effectiveness ratings was relatively high ($r = .69$; $p<.01$). Criteria that were assigned both high importance and effectiveness ratings included acquisition of competent faculty members, a positive learning climate for students, and supportive faculty-student relations. On the other hand, academic departments were rated as less effective on other important criteria that focussed on acquisition of financial, material and physical resources. Although assigned high importance rating, communication of department goals to students was also given lower effectiveness rating. This tended to suggest that the area may be a possible focus in improvement efforts within academic departments.

Comparison of Constituencies' Perspectives

The three constituencies (chairpersons, faculty members, and graduate students) that were requested to rate the overall effectiveness of their departments regarded them as effective. As noted earlier, chairpersons were more positive about the performance of their academic departments than faculty members and graduate students. A general pattern was that chairpersons tended to assign relatively high effectiveness ratings, especially on variables for which they might be expected to be primarily responsible. These included acquisition of financial and human resources, communication of department goals to students, joint planning by chairperson and faculty members to accomplish goals, and faculty involvement in overall leadership of the academic department.

For only a few items did faculty members' ratings exceed those of chairpersons and graduate students. Student satisfaction with academic advising and positive reputation of staff in teaching were among the criteria that were assigned relatively higher ratings by faculty members. A possible explanation may be that these are areas of primary concern to faculty members. For most of the other criteria, graduate students' ratings fell between chairpersons' and faculty members' ratings.

Faculty members' as well as graduate students' ratings never exceeded those of chairpersons by a significant amount on any criterion. In every case, the statistically significant differences were mainly due to the high ratings by chairpersons and relatively lower ratings by faculty members. Criteria with significantly different effectiveness means between chairpersons, on the one hand, and the two other constituencies on the other included joint planning by chairperson and faculty members to accomplish goals, and staff involvement in service to the community.

Chairpersons also assigned significantly higher ratings than faculty members for criteria that focussed on involvement of faculty in overall leadership of the department and acquisition of financial resources. An aspect whose mean was significantly different between chairpersons and graduate students dealt with communication of department goals to students. Although graduate students assigned high importance ratings to the criterion, they viewed the performance of academic departments in this area less favorably.

On the other hand, there were areas of agreement in the ratings provided by the three constituencies. Academic departments were rated positively by the three constituencies for variables that dealt with acquisition of competent faculty, research productivity, and expectations held for students. Similarly, the three constituencies assigned low effectiveness ratings to items that focussed on the involvement of students in departmental leadership.

A higher degree of consistency in constituencies' perceptions was displayed in the importance ratings. Deans, chairpersons, faculty members, and graduate students assigned the highest importance ratings to acquisition of competent faculty. Other criteria that were assigned high importance ratings by all the constituencies included joint planning by chairperson and faculty members to accomplish goals, high morale among faculty, a positive learning climate for students, high research productivity, acquisition of financial resources, and a positive reputation of staff in teaching.

All the constituencies assigned lower importance ratings to three student-related criteria. These were involvement of students in departmental goal-setting and decision-making, and student satisfaction with extra-curricular activities. The first two criteria were viewed by deans, chairpersons and faculty members as activities not fully compatible with the role and ability of students. It was earlier established that all these variables were also assigned lower effectiveness ratings by all the constituencies. These findings suggest that the three criteria may be considered as of minimum importance for assessing academic department effectiveness.

There were some criteria which had significantly different means for the three constituencies—chairpersons, faculty members, and graduate students. These included communication of department goals to students, supportive faculty-student relations, student satisfaction with the academic advising in the department, and provision of job placement services for students. The differences were mainly due to graduate students' high importance ratings presumably because the criteria are primarily student-related. Graduate students also assigned significantly higher importance ratings than did chairpersons and faculty members for the criterion that focussed on the involvement of students in evaluation of the department. Some of them insisted that the term-end evaluations that deal only with teaching should be expanded to cover department-wide aspects such as collegiality, research environment, and major policies and decisions.

Despite some differences, there was a notable degree of consistency among the constituencies' importance ratings. This was supported by the relatively high Pearson correlation coefficients on the importance ratings by the four constituencies. The strongest association was between chairpersons' and faculty members' ratings. Faculty members' ratings were also strongly correlated with deans' and graduate students' ratings. Relatively lower correlation coefficients were obtained for the ratings given by graduate students, on the one hand, and chairpersons and deans on the other. However, the absolute values of the Pearson coefficients were above 0.75 which still represent a relatively high degree of association.

There was also a general agreement on the additional effectiveness criteria forwarded by the four constituencies. Commonly submitted criteria included quality of students and staff, faculty- and university-level effectiveness, and stronger links with related departments and professional organizations. Understandably, many respondents in Science and Engineering considered the acquisition of up-to-date equipment and facilities as a critical ingredient for department effectiveness.

Chairpersons and graduate students frequently cited a balanced emphasis on both the teaching and research components as an important aspect of effective performance. Deans and chairpersons indicated that support and commitment by the provincial government as important elements that affect the performance of academic departments and the university as a whole. Respondents from the four constituencies also mentioned future-oriented planning that tailors programs to meet changing societal needs as an important process that contributes to effectiveness.

Viewed as an effectiveness variable, size of academic departments invited conflicting views from respondents. Some indicated that smaller departments lack the critical mass of both undergraduate and graduate students, and other resources that are essential for effective performance. Others listed higher student/faculty ratio, heavy workload, and low morale as characteristics usually associated with larger departments. On the other hand, there were some who mentioned the diversity of experience and perspectives that usually abound in large departments.

Overall, of the 43 criteria specified in the questionnaire, 40 were regarded by the four constituencies as important for assessing the effectiveness of academic departments.

Constraints on Academic Department Effectiveness

Members of the four constituencies in this study identified many constraints which could limit the effectiveness of academic departments. Generally, the constraints were related to financial problems, faculty members' and students' characteristics, and departmental leadership.

An important consistency was that the four constituencies viewed funding cutbacks as serious impediments to effective performance. Many undesirable outcomes were also attributed to the current budgetary difficulties faced by the university. These included lack of money to hire staff, heavy workload, low morale, and lack of funds to repair equipment and facilities.

Members of the four constituencies also identified lack of collegiality, lack of commitment, and conflict among faculty members as barriers to effectiveness. Graduate students noted that lack of supportive relations between faculty members and students may have a negative impact on a department's performance. Moreover, indifference of faculty members to teaching responsibilities was also cited by many graduate students and chairpersons as a constraint that may limit the effectiveness of academic departments.

Quality of both graduate and undergraduate students was also viewed by chairpersons and faculty members as a critical element that affects the department's performance. Faculty members and graduate students contended that bureaucratic rigidities can be detrimental to academic department effectiveness. Members of all the constituencies cited failure to adopt visionary and future-oriented planning as an important constraint on effectiveness.

DISCUSSION OF THE FINDINGS

In this section, the findings of the current investigation are discussed in relation to the literature and the context of the study.

Effectiveness of Academic Departments

Chairpersons, faculty members, and graduate students generally perceived their academic departments to be effective both in a global sense and in respect of performance on many specific aspects. In general, ratings by chairpersons were relatively higher than the other two constituencies' ratings.

The three constituencies viewed the effectiveness of their academic departments favorably on criteria that focussed on acquisition of competent faculty members, high research productivity, a positive learning climate for students, and high expectations held for students. In particular, the criterion that dealt with the acquisition of competent faculty members was also assigned the highest importance rating by deans, chairpersons, faculty members, and graduate students. All the deans and chairpersons who returned the questionnaire assigned the level "extremely important" to the criterion. Moreover, acquisition of competent faculty members emerged as one of the best predictors and strongest correlates of overall effectiveness in faculty members' and graduate students' perceptions. This was consistent with findings in other studies (e.g., Conrad & Blackburn, 1985; Blau, 1973). Overall, the studies concluded that competent and dedicated faculty are the *sine qua non* for an effective performance in academic departments.

Criteria that related to participative leadership by chairpersons and faculty members were also assigned high importance ratings by all the constituencies. However, the effectiveness assessments on these criteria by chairpersons were relatively higher than faculty members' ratings. This area may offer some scope for improvement through the chairperson's efforts to initiate widespread participation and communication or alternative means.

The perceived value of participative leadership for academic department effectiveness is supported by many studies (e.g., Tucker, 1981; Bare, 1980; McKeachie, 1972). Summing up the recent studies on participative leadership, Birnbaum (1988) stated that "faculty and administrative subordinates *expect* participation" (p. 222) to balance considerations related to professional authority, self-regulation, and bureaucratic authority in academic departments as well as the whole institution.

Other variables that were assigned both high importance and effectiveness ratings were high expectations held for students, a positive learning climate for students, high research productivity, and the departments ability to obtain research grants. The two last-mentioned criteria were strongly correlated in the data from chairpersons, faculty members, and graduate students. Although Blau's (1973) study included only members of the dominant coalition—chairpersons and senior university administrators—findings in his study also indicated a relatively strong association between research productivity and ability to obtain research grants. An earlier study by Hagstrom (1971, p. 384) had likewise established the findings of the present investigation. The focus of Hagstrom's study was restricted to Science-related academic departments. One of his findings tended to indicate that there was a high degree of positive association among research productivity, research grant support, and department effectiveness.

Research conclusions by Pelz and Andrews (1966) which indicated that collegiality and informal communication tended to be stronger in the sciences were also supported by this study. Faculty members as well as graduate students in Science- and Engineering-related departments assigned significantly higher effectiveness ratings to the criterion strong faculty collegiality. Similarly, the criterion was perceived by the two constituencies in the same discipline areas as an important aspect for assessing the effectiveness of academic departments. A possible explanation may be that teaching and research activities in academic departments in Science and Engineering tend to depend at least partly on collegial and informal relationships among faculty members. Even though this is true for other departments, it is not uncommon to see a research article in science and engineering with more than five authors. Similarly, the same course can be taught by different faculty members doing the theoretical, laboratory, and seminar components.

Another criterion with statistically significant mean differences in effectiveness across discipline areas was related to the provision of job placement services for students. On this criterion, the effectiveness rating by faculty members from Business was the highest. Because Business faculties have traditionally provided job placement services for students, the finding is not surprising. However, comments by some chairpersons and faculty members which indicated that the provision of such services may be a primary responsibility for the whole faculty or the university are worthy of attention.

The inter-constituency comparisons of the most important criteria for assessing the effectiveness of academic departments also revealed some significant differences. For example, criteria related to involvement of students in evaluation of the department and communication of department goals to students were assigned significantly higher importance ratings by graduate students. Coupled with the lower effectiveness rating assigned to these criteria by graduate students, these two areas may require some attention. In this regard, a call by a graduate student to broaden the scope of the term-end evaluation to cover areas such as research environment, participation in policy-making, and collective faculty-student relations may provide a basis for improving the performance of academic departments in the eyes of graduate students.

Members of the four constituencies showed a notable consistency in assigning lower importance ratings to three variables that were exclusively related to students. These were involvement of students in both departmental goal-setting and decision-making, and satisfaction of students with extra-curricular activities. These three criteria were also given lower effectiveness ratings. A logical conclusion that can be drawn is that the three criteria do not seem to be useful measures of overall effectiveness in academic departments.

This study's findings that consistently indicated lower importance and effectiveness ratings for criteria that focussed on student involvement in departmental goal-setting and decision-making can also be viewed in the context of prior research. The conclusion of this investigation lends further support to the findings of Bare's (1980) study. His data indicated that collaborative decision-making (i.e., including students) correlated negatively with student satisfaction. He commented: "One could hypothesize that students respond more to professional expertise and they find the uncertainties and responsibilities of shared decision-making more aversive than the certainty of clear requirements" (p.19).

However, a surprising finding in Bare's investigation was not supported by this study. His analysis indicated that the highest levels of student satisfaction with their education were found in academic departments in which the faculty perceive themselves as maintaining non-supportive relationships with students. Generally, findings of this inquiry indicated that supportive faculty-student relations was one of the strongest correlates of student satisfaction with their formal learning experiences and academic advising. In a similar vein, Blau (1973) concluded that teaching/learning outcomes depended upon the quality of relationships between faculty members and students. For example, one of his findings tended to show that there was high degree of correlation among efficiency in completion of requirements for Ph.D., satisfaction with learning and research work, and supportive student-advisor relationships in doctoral programs. Although the focus of Blau's study was narrow, the findings were similar to those of the current study.

As noted earlier, educators usually stress that the tasks of academic departments are teaching, research, and service to the community. With respect to the last-mentioned task, although chairpersons and deans assigned relatively high effectiveness ratings to the criterion that dealt with involvement of staff in service to the community, faculty members' and graduate students' ratings were lower. However, faculty members and graduate students in Education, and Physical Education and Recreation assigned substantially higher importance and effectiveness ratings for the variable.

Although a simplistic conclusion may be to state that academic departments have given less attention to "the vision of service" (Dressel et al., 1970, pp. 222-223), there are some deeper notions that require further explanation. Teaching, research, and service are each performed with the use of different technologies. As noted by Birnbaum (1988), teaching typically involves classroom instruction and student advising; research may require laboratory investigation, library work, and communication with colleagues in the same department or in other institutions; and service programs utilize workshops, consulting, extension centers, and communication with community agencies. Accordingly, and as noted by Enns et al. (1986), although academic departments comprise a mix of activities, the proportion of each that may be appropriate for individuals in the various disciplines is not clear. For example, they explained that in the natural sciences a strong emphasis on laboratory research is traditional; in the social sciences and humanities the tendency has been to emphasize teaching although nonlaboratory research activity is also valued; and in Education and other professional faculties, teaching and research activity tend to be modified by the demand for service to the profession and community.

As mentioned earlier, partial support for the differences in emphasis on the activities was obtained in this study; faculty members and graduate students in Education, and Physical Education and Recreation were significantly more positive about the involvement of staff in service to the community than their colleagues in the other disciplines. However, the determination of the appropriate mix of activities across academic departments in different disciplines awaits further research.

As noted earlier, criteria that dealt with strong faculty collegiality and high morale among faculty members emerged either as important predictors or strong correlates of overall academic department effectiveness. A related criterion that consistently displayed a high degree of association with the two criteria was the department's ability to resolve conflict among its members. Significantly, "conflict among members" was one of the frequently-mentioned constraints on academic department effectiveness. Summing up much of the writing on conflict in the context of academic departments, Tucker (1984) stated that "there seems to be an inverse relationship between the degree of conflict in a department and the level of morale: the more conflict, the lower the morale; the less conflict, the higher the morale" (p. 217). Similarly, Hall (1982) stated that "conflict per se, of course, would be detrimental to an organization if it were not resolved" (p. 89). The aforementioned findings of the study which show strong positive correlations among conflict resolution, morale among faculty, collegiality, and overall effectiveness seem to support Hall's and Tucker's statements.

The dual importance-effectiveness ratings for specific criteria made it possible to check whether academic departments perform best in—and, by implication, perhaps also focus most effort upon—aspects that are most crucial for high performance. There were two criteria, for example, which were assigned high importance ratings but the performance of academic departments in those aspects was viewed less favorably. The criteria dealt with adequate mechanisms of recognition and rewards for faculty members and communication of department goals to students. The implication is that a shift in priorities toward the criteria of greatest consequence may not only improve performance in these areas but also enhance the constituencies' overall satisfaction with their academic departments.

On the other hand, all the constituencies considered 40 of the 43 criteria as important for assessing the effectiveness of academic departments. These findings support the current view that effectiveness is a complex and multi-faceted construct. As Cameron (1987) has noted, the pursuit of effectiveness is not a search for the single best criterion. It is, instead, the pursuit of a variety of criteria that would serve to guide the assessments by multiple evaluators.

The attention given to multiple perspectives of effectiveness is also worthy of note. In addition to the above-given examples of criteria that were assigned significantly different means by the four constituencies, correlation analyses were used to determine the degree of association between their ratings. The strongest correlation in the importance ratings was between those of chairpersons and faculty members, whereas the association between deans' and graduate students' ratings were relatively lower. At least two implications that can be drawn form these findings.

First, the inclusion of perceptions of different constituencies may provide the leadership within the department with a relatively comprehensive basis for improved decision-making. Second, earlier studies (e.g., Cameron, 1978; Conrad & Blackburn, 1985) included only the views of the members of the "dominant coalition" or senior administrators. As noted by Cameron (1978), the commonly advanced reason for the exclusion of student perceptions was that their views do not differ significantly from those of faculty members or administrators. However, this was not fully supported by the findings of the current study. As noted earlier, there were criteria that were given significantly different ratings by students and the other constituencies.

Data from the constituencies were also compared according to certain personal, professional, and academic characteristics of the respondents. There were no statistically significant differences in the overall effectiveness assessments of academic departments. According to the survey findings from this study, means for overall effectiveness were not significantly different between smaller and larger departments. On the criterion that focussed on high morale among faculty members, however, ratings by chairpersons in smaller departments were substantially higher than ratings for larger departments. A possible explanation may be that factors that affect morale which include sense of community, interaction, and supportive faculty-student relations tend to be usually associated with smaller departments. A speculative but related explanation is that the present financial problems and associated undesirable effects of heavy workload and low morale might have affected the larger departments more than the smaller ones. Studies by Ell (1988) and Birnbaum (1988) reported findings that tended to show a relatively strong association between financial constraint and declining morale among faculty members. Similarly, according to this study's data from faculty members, acquisition of financial resources was the strongest correlate of morale among faculty members.

On the other hand, there were comments which indicated that smaller departments generally lack adequate human and physical resources which are necessary for effective performance. A critical mass of department members is required to offer a diversified academic program, to provide each with stimulating colleagues, and to foster the development of a cohesive network of social integration. In contrast, large departments, unless they grow too large, provide each member with a range of colleagues for academic discussions and social relations. Blau (1973) and others suggested that an increasing size of academic departments must be accompanied by differentiation into subunits in order to foster collegiality and effective performance.

There were notable similarities in the additional criteria of effectiveness that were submitted by the four constituencies. Although many of the criteria were covered elsewhere in the questionnaire, there were some that provided fresh insight. Generally, the additional items dealt with the complex relationships of the aspects and activities of an academic department. Examples include balanced emphasis of teaching and research; hiring of faculty members for teaching ability and research potential; appropriate balance between the "breadth" and "depth" of different research areas; and future-oriented planning that tailors programs to meet changing societal needs.

Deans, chairpersons, faculty members, and graduate students posited a wide range of constraints on academic department effectiveness. The constraints dealt mainly with financial resources, faculty members' and students' characteristics, and leadership within the department and at higher levels. The current budgetary difficulties faced by the university were cited as a major constraint on the performance of academic departments. Many also mentioned by-products of the funding cutbacks as impediments to effectiveness. These included high student/faculty ratios, heavier workload for faculty members, low morale, and out-dated equipment and facilities.

Lack of collegiality, conflict among faculty members, lower quality of students were also commonly mentioned as factors that can have negative effect on the performance of an academic department. Ineffective leadership within the department, lack of support from the dean, and lack of institutional support were also recorded as constraints. Deans and chairpersons, in particular, cited lack of commitment by the provincial government to provide adequate support as a major inhibiting factor on effectiveness at the department and other levels in the university.

If we put the study in perspective, it can be concluded that most of the findings were as expected, and generally confirmed results from prior research on the effectiveness of academic departments. In short, and as noted by Wolcott (1985), almost all the results "make the obvious obvious" (p. 193). The overriding importance of acquisition of competent faculty members for academic department effectiveness was a notable finding of the study. However, the result was not unexpected. The effectiveness of an academic department and its contribution to knowledge and to society depend mainly on the quality of its faculty members. This has been established by several research studies undertaken in the context of academic departments (e.g., Blau, 1973; Bare, 1980).

Similarly, the importance of strong and participative leadership within the department for overall effectiveness was not a surprising finding. Academic departments are expected to have a collaborative leadership by the chairperson and other faculty members.

Research productivity and positive reputation of staff in teaching were also assigned high importance ratings. It is generally true that teaching and research do make conflicting demands on the time of faculty members, and usually one activity is emphasized at the expense of the other. In this study, however, several respondents called for a balanced emphasis on, and compatible incentive systems for, both activities.

Given the significance of the issue of research, some reflections on the items of the questionnaire that dealt with it may be relevant. One of the key criteria that focussed on the issue was named research productivity. The criterion may be a bit vague. Ideally, it is supposed to capture both the quality and quantity of research in an academic department. But to give a perceptual assessment of the activity may not be easy. On this criterion, all constituencies assigned high effectiveness ratings to their academic departments. However, separate measures that define the criterion to account for both the quality and quantity (e.g., number of articles in reputable journals) might have yielded different result.

A substantial majority of the respondents in the study perceived the effectiveness of their academic departments as high. Since the University of Alberta is one of the better institutions of higher education in Canada, the finding in itself was not surprising. The surprising aspect of the finding was the high effectiveness ratings on many items despite many respondents' concern with an array of constraints affecting the performance of academic departments.

The finding that all the constituencies (even graduate students) assigned relatively lower importance ratings to criteria that focussed on participation of students in departmental leadership was unexpected. Recently, there have been complaints from some students that they are the "forgotten constituency" in the spectrum of governance of academic departments. However, two possible explanations may be given for the finding. First, students are usually a transient constituency of academic departments. Second, there is a perception that they may not have the required expertise to fully participate in the decision-making processes of academic departments.

CONCLUSIONS

The following conclusions were drawn on the basis of the data examined and the findings obtained.

1. Chairpersons, faculty members, and graduate students generally perceived their academic departments as effective. Overall, chairpersons viewed the performance of their departments more favorably than did the other two constituencies. Variables that were assigned high effectiveness ratings included acquisition of competent faculty members, a positive learning climate for students, high expectations held for students, and high research productivity. There were no statistically significant differences in the overall effectiveness ratings by the three constituencies.

2. Lower effectiveness ratings were given by the three constituencies to three items that dealt with involvement of students in both departmental goal-setting and decision-making, and student satisfaction with extra-curricular activities. The same three items were also perceived by deans, chairpersons, faculty members, and graduate students to be of least importance for assessing academic department

effectiveness. The criterion that focussed on the involvement of students in evaluation of the department was assigned relatively higher importance ratings by the constituencies. Overall, 40 of the 43 criteria were perceived to be important for assessing academic department effectiveness by the four constituencies.

3. Acquisition of competent faculty was viewed by the four constituencies as the most important criterion upon which assessments of academic department effectiveness should be based. Criteria that dealt with participative leadership in the department, high research productivity, and a positive reputation of staff in teaching were also assigned high importance ratings.

4. There were a number of criteria which were assigned significantly different effectiveness means by the different constituencies. This suggests that recognition of differing perspectives is important for the leadership within the department and administrators at the faculty and higher levels.

5. There were also some criteria whose effectiveness means were significantly different across the discipline areas of faculty members and graduate students.

6. The complexity and multi-dimensionality of the effectiveness construct were demonstrated by the additional criteria that were advanced by the four constituencies.

7. Members of the four constituencies provided a wide range of constraints on academic department effectiveness that may be recommended for resolution by policy-makers and administrators. Financial restraint and related problems were the common concerns of all the constituencies.

IMPLICATIONS

On the basis of findings and conclusions derived from this study a number of important implications can be identified for consideration. These implications are relevant to practice, theory, and research.

Implications for Practice

The findings from this investigation of academic department effectiveness have drawn attention to the comprehensive focus required if program improvements are to be adequately addressed. The leadership at the department-level, faculty-level, and senior administrators need to take into account the expectations and perceptions of various constituencies. Efforts to enhance effectiveness should, therefore, focus on a comprehensive set of criteria that cover the major activities and characteristics of the academic department. Otherwise, the assessment may be incomplete or, perhaps more seriously, it may be distorted.

Moreover, the findings have emphasized the importance of including various constituencies in effectiveness assessments. The investigation has identified areas of consistency and difference among the four constituencies. The leadership at the department- and faculty-level may use these findings as a basis for diagnostic intervention to integrate and accommodate the discrepant perceptions. Practically, the results may provide a framework for discussion among the various constituencies to enhance effectiveness of academic departments.

Although many members of the selected strategic constituencies mentioned major constraints on academic department effectiveness, they viewed the performance of their academic departments favorably. One possible explanation may be that despite the current budgetary difficulties, academic departments at the University of Alberta are performing reasonably well. Another reason, even though speculative, may be that chairpersons, faculty members, and graduate students hold an inflated image of their own academic departments. Such tendency has been detected in an earlier study by Blau (1973).

The importance-effectiveness analysis revealed some areas that may require attention from the leadership within the department. Examples include criteria that dealt with adequate mechanisms of recognition and rewards for faculty members, and communication of department goals to students. These criteria were assigned higher importance ratings but relatively lower ratings on effectiveness by faculty members and graduate students. Another criterion that may constitute a focus for improvement deals with participatory leadership by chairpersons and faculty members. Powers and Powers (1983) indicated that one of the important advantages of participatory leadership is its power to build a sense of community in the academic department. Devotion to common goals, pooling of expertise, mutual accommodation and cooperation, and commitment to outcomes of group deliberations are elements of participatory leadership which can enhance the effectiveness of academic departments.

Although faculty members assigned higher effectiveness ratings to positive reputation of staff in teaching, chairpersons and many graduate students referred to a declining emphasis on teaching as a serious constraint on the effectiveness of academic departments. Some graduate students mentioned the indifference of some faculty members to teaching responsibilities. An improvement of performance in this aspect, therefore, may contribute to enhanced overall effectiveness in academic departments.

The establishment of academic departments grew out of a need to improve the organization and management of the academic process as knowledge expanded at an accelerating pace. The day of "tired and knowledgeable clergyman" teaching everything from rhetoric to natural philosophy was over. As indicated by Tucker (1981) and McHenry (1977), the influence of the German universities and their search for scientific truth led to the present era of academic departments. Critics charge that research has pushed teaching into subordinate position. Few respondents called for a balanced emphasis on the research and teaching activities in their departments. Some suggested hiring faculty members for teaching ability and research potential, and modification of institutional policies to reward teaching excellence.

Criteria related to goal-setting and accomplishment by chairpersons and faculty members were also highly regarded by the respondents. There is general consensus among writers in this field that academic departments should have goals and statements of purpose (e.g., Tucker 1981; Birnbaum, 1988). It is essential for an academic department to have a sense of what it is doing and where it is going. Goals and mission statements serve as foundations on which the academic department builds and justifies the grounds for its existence within the university.

A goal has a specified or implied end, whereas missions are continuous. At a time when accountability is repeatedly used as a warning or threat, academic department members should not only have a statement of their purpose but should be able to identify a set of goals that they expect to achieve. The professional aspirations of the academic department should be outlined and compared with actual accomplishments. Many respondents also stated that the adoption of strategic planning at the department level may help in tailoring programs and goals to meet changing societal needs. The findings of this investigation may provide the stimulus for a wider use of strategic planning at the academic department level.

Another practical implication of the present study is related to faculty members' satisfaction with professional development. Although this criterion was assigned very high importance rating, the performance of academic departments in that aspect was not viewed positively by many respondents, especially faculty members. As Tucker (1984) has noted, a case can be made that a department's leadership most important function is to foster the growth and development of faculty members. He stated that "an academic department's effectiveness depends largely on *faculty development*, a term coined to denote self-renewing activities for faculty members" (p. 121). With the curtailment of funds to support such valued activity, the leadership within the department has to find some innovative ways to undertake faculty development.

Deans and chairpersons, in particular, viewed the criterion that focussed on adaptiveness of the department to changes in the environment as an important aspect for effectiveness. Moreover, faculty members and graduate students mentioned strategic planning and other environment-related additional criteria as important for assessing the effectiveness of academic departments. These findings tended to emphasize the important place of the organizational environment in academic department activities and assessments of effective performance. There are varying external factors that affect planning and decision-making in the context of departmental leadership.

According to Cameron (1987) and Birnbaum (1988), public confidence in higher education is declining at the same time that financial support is eroding. The general message is to do more with less. Financial constraints have affected many of the activities of academic departments. Besides, academic departments are facing changes in the student population they serve and the technology they use. Consequently, the leadership within the department has to devote attention to understanding the immediate task environment defined by the organization's direct interactions as well as the broader contextual or general environment. All this has important implications for practice, stressing the importance of being able to scan and sense changes in task and contextual environments; to bridge and manage critical boundaries and areas of interdependence; and to develop appropriate strategic responses.

Another implication for practice that emerges from the findings is related to the leadership within the academic department. Many members of the four constituencies cited ineffective leadership as one of the major constraints to the performance of academic departments. Brown (1977) pointed out that the quality of departmental administration is crucial for the constructive resolution of tensions and is essential for the development of a positive educational climate in the department. Although it may not be feasible due to the current budgetary difficulties, Andersen (1977) suggested that many academic departments need a full-time administrative assistant as executive secretary to save the chairperson for teaching, research, and major policy decisions. As noted earlier, another relevant factor in enhancing the effectiveness of the leadership within the department is making wise use of participatory and shared responsibility.

Implications for Theory

Because of its centrality in theorizing and research, effectiveness in academic departments and the university as a whole has generated a lot of attention. However, there are only a few empirical studies in the area. This study has made a contribution to the field.

The instrument used in the study was specifically developed for the investigation. A review of the pertinent literature and two pilot studies were used to generate a set of criteria specifically related to academic departments instead of universal criteria applicable to all types of organizations. The instrument was found to be suitable for the intended purpose. Moreover, it had a very satisfactory reliability. In short, meaningful data were obtained covering most of the dimensions of the theoretical framework on which the study was based.

However, the proposed theoretical framework may require some refinement. There is general agreement among organizational theorists that no model is all-inclusive. With this in mind, possible improvements may include the recognition of the peculiarities of certain academic departments such as, for example, professional departments.

The conceptual and methodological approaches taken by this study also have some implications for the theory on effectiveness. Many models of organizations have been added to the existing conceptualizations over the years (e.g., Morgan, 1986). Researchers (e.g., Miles, 1980; Cameron & Whetten, 1983; Seashore, 1983) indicated that much of the confusion in the literature on organizational effectiveness today stems from the fact that assessments of performance tended to be related to particular models of organizations. As noted by Cameron and Whetten (1983), because such an approach ignores the current thinking that no single theory represents a complete model of organizations, it has led to severe, but justified, criticism that the literature on organizational effectiveness is fragmented, non-cumulative, and even confusing.

The theoretical approach taken in this study recognized that the construct of effectiveness accommodates a wide variety of criteria. Therefore, in an effort to present a relatively comprehensive understanding of the construct, this study employed multiple models of organizational effectiveness to generate multiple criteria. The value of criteria lie in the perceptions and preferences of individuals as well as groups. Consequently, multiple constituents' perceptions of the performance of academic departments were obtained.

Clearly, a comprehensive theory of academic department effectiveness awaits more studies. Many criteria that are relevant to the performance of departments require thorough investigation. Theoretical models that relate specific causal factors (determinants) to dependent variables that cover the major activities of a department have yet to be constructed.

Implications for Research

This study has contributed to the body of knowledge on academic department effectiveness by examining multiple constituent perceptions. Similarly, the investigation has highlighted the breadth and complexity of effectiveness. The complexity of the present findings refutes a host of simplistic alternative models of academic department functioning that usually employ the classic two-variable study to assess performance. In such studies, the researcher usually examines a single outcome (for example, research productivity) in terms of a single predictor (for example, collegiality). By investigating the perceptions of deans, chairpersons, faculty members, and graduate students on multiple criteria of effectiveness, this study has broadened our understanding of academic department effectiveness.

There are also some recommendations for further research that can be identified as a result of the study. Although the response rates were relatively high, the sample of deans and chairpersons was too small for many statistical procedures such as regression analysis. Even the larger samples of faculty members and graduate students generated small sub-samples when classified by certain characteristics such as discipline areas. As a result, a similar study might well be conducted with a larger sample of respondents by including several universities.

Zammuto (1982) indicated that an unresolved issue in measuring effectiveness is the assessment of organizational performance across time. The specific period and the actual time frame used in assessing performance is important not only for judging a department's effectiveness, but also for assuring comparability in assessments across academic departments. Consequently, a longitudinal study may be useful to compare findings of this study and the effectiveness of academic departments over a period of time.

One of the salient findings of the present study was the high importance rating assigned to criteria that focussed on participative leadership by the chairperson and faculty members. Although related to the study, the effectiveness of chairpersons was not part of this investigation. To improve the performance of academic departments, future research may be required to investigate the essential criteria for assessing the effectiveness of chairpersons, and the levels and areas of participation by faculty members in departmental leadership.

Another issue for further research is related to the level of analysis in effectiveness studies. As Mossholder and Bedeian (1983) have noted, the overall effectiveness of a given organization does not preclude the ineffectiveness of its subunits, or vice-versa. Similarly, Gharajedaghi and Ackoff (1984) indicated that the parts of an organization are interdependent, and even if each unit performs effectively, the organization as a whole may not perform very effectively. This phenomenon as its relates to academic departments, faculties, and the university as a whole warrants further detailed investigation.

An important area for further inquiry may deal with the wide range of personal, organizational and environmental constraints on academic department effectiveness. This investigation has highlighted the relevance of the major constraints on effective performance and has drawn attention to specific items that may be submitted to administrators and policy-makers for resolution. This suggests that some of the current focus of research on effective performance should be shifted toward the identification of the nature of those constraints, and design of strategies to deal with those problems.

The focus on constraints opens an alternative approach to organizational effectiveness. Cameron (1984), for example, argued for the inclusion of this approach in effectiveness research. He stated that such line of inquiry should "focus on the factors that *inhibit* successful organizational performance rather than the factors that contribute to or indicate [effectiveness]" (p. 245). The main reason forwarded by proponents of this approach is that it is more relevant to practitioners. Moreover, they argue that it is easier and more accurate for respondents to identify criteria of ineffectiveness—that is, faults or weaknesses—than it is to identify criteria of effectiveness—for example, competencies or desirable outcomes (e.g., Zammuto, 1982; Cameron & Whetten, 1983; Cameron, 1984).

In particular, Cameron (1984) indicated that the approach is consistent with the writings of many philosophers who propose that whereas people vary in what they seek to achieve (for example, desired outcomes and goals), they are very much alike in what they seek to avoid (for example, failures and problems). It has also been discovered that organizational change and improvement is motivated more by knowledge of problems than by recognition of success. In the context of higher education institutions, a comprehensive and systematic study of the environmental, organizational, administrative and staff-related factors that inhibit the performance of academic departments and thereby lead to ineffectiveness awaits further research.

Another important and largely unexplored area of effectiveness that awaits research deals with the nature and effects of paradoxical aspects of organizations. For example, it is not unusual for the various constituencies of an organization to hold contradictory preferences simultaneously. Cameron's (1981) research on colleges and universities, and Miles and Cameron's (1982) investigation of the U.S. tobacco industry, illustrated how organizations deal with criteria of effectiveness that are paradoxical. Contradictory or paradoxical criteria in these organizations led to "incrementalism" (that is, trading of one set of preferences against another), "satisficing" (that is, fulfilling all preferences to only a limited extent), or "sequencing" (that is, alternating emphasis among preferences). With regards to academic departments, it would be helpful to study how conflicting demands from various constituencies are dealt with in order to improve overall performance.

As noted by many researchers on organizational effectiveness (e.g., Seashore, 1983; Zammuto, 1982), past studies have failed to identify the time frame and other conceptual aspects that affect performance inquiries. Other problems included ambiguous definitions and ambiguous criteria. By presenting the definitions, time frame and other methodological issues at the outset (detailed in Chapters 1 and 2), this study has sought to define the boundaries of the investigation. Limitations and delimitations of the study were also clearly outlined. This may contribute to future clarity in this kind of investigation.

Finally, an area for further research is related to strategies that may be devised and implemented for improving performance in academic departments. Research following this line of inquiry has been connected to program reviews which were undertaken in many universities during the 1970s and 1980s across Canada and the U.S. At the University of Alberta, such reviews were conducted with the aim of program improvement and, ultimately, of enhancing overall effectiveness (e.g., Harris & Holdaway, 1983; Holdaway et al., 1990). Birnbaum (1988) indicated that many academic departments in the U.S. have permanent visiting committees composed of outside and internal scholars who provide advice for periodic revitalization. The effects, standards, and criteria used in such undertakings and the relationships with effectiveness research require more investigation. The findings of this study may provide some understanding for the development of effective strategies to improve performance in academic departments.

CONCLUDING REMARKS

Because it is both a timely and a timeless issue, organizational effectiveness will continue to occupy the attention of practitioners, theorists, and researchers. Individuals are continually faced with the need to make judgements about the effectiveness of organizations. For example, which subunits to close, or to which department a grant should be awarded, are decisions that depend at least partly on judgements of organizational effectiveness. Unfortunately, as Cameron and Whetten (1983) have noted, the public's judgements often are based on criteria that are unrelated to or inconsistent with organizational performance. There is a need, therefore, for more systematic analysis of the effectiveness construct in order to improve assessment as well as performance in organizations.

The focus of analysis for this study was the academic department. It is generally recognized that academic departments are a predominant force in higher education. Academic departments, as organizational units based on the commonly accepted divisions of knowledge, afford convenience by grouping faculty members and students on the basis of their particular scholarly interests.

Studies which focus on the effectiveness of academic departments are few. A unified theory of academic department effectiveness awaits more studies and further research using larger populations. It is hoped that this study will make a contribution to such undertakings and lead to improved performance in academic departments.

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APPENDICES

APPENDIX A

Questionnaires for Deans, Chairpersons, Faculty Members, and Graduate Students

ASSESSING ACADEMIC DEPARTMENT EFFECTIVENESS
QUESTIONNAIRE FOR FACULTY MEMBERS

Part I - Demographic Information

Please check (✓) the appropriate answer.

Office use only
(1) 1-5

1. What is your academic rank?

(1) Professor ____ (3) Assistant Professor ____ 6
(2) Associate Professor ____ (4) Other (please specify)
____

2. What is the highest academic degree you hold?

(1) Doctorate ____ (3) Bachelor's ____ 7
(2) Master's ____ (4) Other (please specify)
____

3. What is your tenure status?

(1) Tenured ____ (2) Non-tenured ____ 8

4. What is your academic department? ____________________ 9, 10

5. What is your sex?

(1) Female ____ (2) Male ____ 11

6. What is your age category?

(1) Under 30 ____ (4) 50 - 59 ____ 12
(2) 30 - 39 ____ (5) 60 or older ____
(3) 40 - 49 ____

7. For how long have you held an academic appointment in the department?
________ years 13, 14

ASSESSING ACADEMIC DEPARTMENT EFFECTIVENESS
QUESTIONNAIRE FOR GRADUATE STUDENTS

Part 1 - Demographic Information

Office use only

Please check (✓) the appropriate answer. **(1) 1-5**

1. Are you a full-time or part-time student?

(1) Full-time ____ (2) Part-time ____ 6

2. What is your sex?

(1) Female ____ (2) Male ____ 7

3. What is your department? ______________________________ 8, 9

4. For how long have you been enrolled in the department? ____ years 10

5. What is your age category?

(1) Under 30 ____ (4) 50 - 59 ____ 11
(2) 30 - 39 ____ (5) 60 or older ____
(3) 40 - 49 ____

6. What is your degree program?

(1) Doctoral ____ (3) Other (please specify) 12
(2) Master's ____ ____________________

Part II - Academic Department Effectiveness

Please assess the importance of each of the following factors for achieving effectiveness in academic departments, using the following scale:

Not Important	Slightly Important	Moderately Important	Extremely Important
N	S	M	E

Please also assess the effectiveness of your academic department for each factor, using the following scale:

Not Effective	Slightly Effective	Moderately Effective	Highly Effective	Very Highly Effective
1	2	3	4	5

If you feel you do not have sufficient information to rate your department on a particular item, circle the number 6.

	Department factor	Importance for department effectiveness	Effectiveness of your department		Office use only
1.	Clear department goals	N S M E	1 2 3 4 5	6	22. 23
2.	Joint planning by chairperson and faculty members to accomplish goals	N S M E	1 2 3 4 5	6	24. 25
3.	Monitoring of progress to achieve department goals	N S M E	1 2 3 4 5	6	26. 27
4.	Collaborative problem-solving by chairperson and faculty members	N S M E	1 2 3 4 5	6	28. 29
5.	Strong faculty collegiality	N S M E	1 2 3 4 5	6	30. 31
6.	Supportive faculty - student relations	N S M E	1 2 3 4 5	6	32. 33
7.	Positive reputation of staff in teaching	N S M E	1 2 3 4 5	6	34. 35
8.	High research productivity	N S M E	1 2 3 4 5	6	36. 37
9.	Strong involvement of staff in service to the community	N S M E	1 2 3 4 5	6	38. 39
10	Adequate mechanisms of recognition and rewards for faculty members	N S M E	1 2 3 4 5	6	40. 41

	Department factor	Importance for department effectiveness	Effectiveness of your department		Office use only
11	High morale among faculty members	N S M E	1 2 3 4 5	6	42, 43
12	Strong commitment to department by faculty members	N S M E	1 2 3 4 5	6	44, 45
13	Faculty members' satisfaction with the teaching in the department	N S M E	1 2 3 4 5	6	46, 47
14	Faculty members' satisfaction with the research activity in the department	N S M E	1 2 3 4 5	6	48, 49
15	Faculty members' satisfaction with personal and professional development	N S M E	1 2 3 4 5	6	50, 51
16	Honors and awards received by faculty members	N S M E	1 2 3 4 5	6	52, 53
17	Involvement of faculty members in departmental goal-setting	N S M E	1 2 3 4 5	6	54, 55
18	Involvement of faculty members in departmental decision-making	N S M E	1 2 3 4 5	6	56, 57
19	Involvement of faculty members in evaluation of the department	N S M E	1 2 3 4 5	6	58, 59
20	Involvement of faculty members in overall leadership of the department	N S M E	1 2 3 4 5	6	60, 61
21	Cooperative support staff in the department	N S M E	1 2 3 4 5	6	62, 63
22	High expectations held for students in the department	N S M E	1 2 3 4 5	6	64, 65
23	Communication of department goals to students	N S M E	1 2 3 4 5	6	66, 67
24	Involvement of students in departmental goal-setting	N S M E	1 2 3 4 5	6	68, 69
25	Involvement of students in departmental decision-making	N S M E	1 2 3 4 5	6	70, 71
26	Involvement of students in evaluation of the department	N S M E	1 2 3 4 5	6	72, 73

	Department factor	Importance for department effectiveness	Effectiveness of your department		Office use only
					(2) 1-5
27	A positive learning climate for students	N S M E	1 2 3 4 5	6	6, 7
28	Provision of job placement services for students	N S M E	1 2 3 4 5	6	8, 9
29	Student satisfaction with the formal learning experiences in the department	N S M E	1 2 3 4 5	6	10, 11
30	Student satisfaction with academic advising in the department	N S M E	1 2 3 4 5	6	12, 13
31	Student satisfaction with extracurricular activities in the department	N S M E	1 2 3 4 5	6	14, 15
32	Success record of the department's graduates	N S M E	1 2 3 4 5	6	16, 17
33	Participative policy-making in the department	N S M E	1 2 3 4 5	6	18, 19
34	Adaptiveness of the department to changes in the environment	N S M E	1 2 3 4 5	6	20, 21
35	Flexibility of the department's administration	N S M E	1 2 3 4 5	6	22, 23
36	Acquisition of financial resources by the department	N S M E	1 2 3 4 5	6	24, 25
37	Acquisition of competent faculty members	N S M E	1 2 3 4 5	6	26, 27
38	Acquisition of suitable material and physical resources	N S M E	1 2 3 4 5	6	28, 29
39	Efficient use of resources	N S M E	1 2 3 4 5	6	30, 31
40	Department's influence in the University	N S M E	1 2 3 4 5	6	32, 33
41	Department's ability to obtain research grants	N S M E	1 2 3 4 5	6	34, 35
42	Department's ability to resolve conflict among its members	N S M E	1 2 3 4 5	6	36, 37
43	Strong leadership within the department	N S M E	1 2 3 4 5	6	38, 39

	Department factor	Importance for department effectiveness	Effectiveness of your department		Office use only
44	Other factors contributing to academic department effectiveness that are not identified above (please specify)				
	(a) ____________________	N S M E	1 2 3 4 5	6	
	(b) ____________________	N S M E	1 2 3 4 5	6	
	(c) ____________________	N S M E	1 2 3 4 5	6	
45	The overall effectiveness of your department	--------------------	1 2 3 4 5	6	40
46	Which three factors in your department most inhibit its effectiveness?				
	(a) ____________________				
	(b) ____________________				
	(c) ____________________				

Additional Comments:

Please add any comments that you wish to make about academic department effectiveness. *(Use reverse side if necessary.)*

THANK YOU FOR YOUR COOPERATION!

Berhane Elfu
Dept. of Educational Administration
7-104 Education Bldg. North

APPENDIX B

Correspondences:

Requests for Cooperation with Pilot Testing
Covering Letters to Constituencies
Follow-up Letter to Constituencies

Dear Student;

Re: Pilot Testing of Questionnaires

I would be most grateful to receive you assistance in completing the enclosed questionnaire designed to study the effectiveness of academic departments.

So that the questionnaire and covering letter can be refined and improved, please record your reactions, and recommendations about any aspects of these documents. In particular, you may wish to express opinion about the following matters:

1. length of the questionnaire;
2. specific questions which are ambiguous or unsuitable;
3. readability and layout;
4. important omissions from the questionnaire; and
5. the suitability of the rating scales.

I am deeply appreciative of your cooperation in this process.

Yours sincerely,

Berhane Elfu.

Berhane Elfu, B.Sc. (Hons.), M.Sc., M.B.A.
Ph.D. student, Dept. of Educational Administration

University of Alberta
Edmonton
Canada T6G 2G5

Department of Educational Administration
Faculty of Education

7-104 Education Building North, Telephone (403) 492-5241

October 1, 1990

Dear Colleague:

I am writing to request your assistance in completing the enclosed questionnaire dealing with the effectiveness of academic departments in universities. This information is needed for a study being conducted by Berhane Elfu as part of the requirements for his Ph.D. I chair Berhane's supervisory committee.

This questionnaire is being sent to faculty deans, department chairs, faculty members, and graduate students in randomly selected departments at the University of Alberta.

It is important for the purpose of the study that the reponse rate be high. Your cooperation is important and would be greatly appreciated.

Please do not hesitate to contact Berhane directly at 492-3094 or me at 492-7625 if you have any questions or concerns.

Sincerely yours,

Eugene W. Ratsoy

Eugene W. Ratsoy
Professor and Chair

EWR/ms

University of Alberta
Edmonton

Department of Educational Administration
Faculty of Education

Canada T6G 2G5

7-104 Education Building North, Telephone (403) 492-5241

October 1, 1990

Dear Graduate Student:

I am writing to request your assistance in completing the enclosed questionnaire dealing with the effectiveness of academic departments in universities. This information is needed for a study being conducted by Berhane Elfu as part of the requirements for his Ph.D. I chair Berhane's supervisory committee.

This questionnaire is being sent to faculty deans, department chairs, faculty members, and graduate students in randomly selected departments at the University of Alberta.

It is important for the purpose of the study that the reponse rate be high. Your cooperation is important and would be greatly appreciated.

Please do not hesitate to contact Berhane directly at 492-3094 or me at 492-7625 if you have any questions or concerns.

Sincerely yours,

Eugene W Ratsoy

Eugene W. Ratsoy
Professor and Chair

EWR/ms

October 1, 1990

Dear Professor:

As part of the program requirements for my Ph.D., I am conducting a study on the effectiveness of academic departments at the University of Alberta. The purpose of the study is to identify the main effectiveness criteria of academic departments. Respondents include deans, chairpersons, faculty members, and graduate students.

The study has been given research ethics clearance at this university.

I need your support and your response to make the study meaningful. Your assistance in completing the questionnaire, therefore, is very crucial to the study. Steps have been taken to achieve both confidentiality and anonymity. Please complete the questionnaire and seal it in the envelope provided for campus mailing. No stamp is required.

Once the study is completed, the results will be made available through the usual publication channels.

Thank you very much for your cooperation.

Yours sincerely,

Berhane Elfu

Berhane Elfu,
Ph.D. Candidate,
Dept. of Educational Administration

October 1, 1990

Dear Graduate Student:

As part of the program requirements for my Ph.D., I am conducting a study on the effectiveness of academic departments at the University of Alberta. The purpose of the study is to identify the main effectiveness criteria of academic departments. Respondents include deans, chairpersons, faculty members, and graduate students.

The study has been given research ethics clearance at this university.

I need your support and your response to make the study meaningful. Your assistance in completing the questionnaire is, therefore crucial to the study. Steps have been taken to achieve both confidentiality and anonymity. Please complete the questionnaire, seal it in the envelope provided, and return it to your department office as soon as possible for campus mailing. No stamp is required.

Thank you very much for your cooperation.

Yours sincerely,

Berhane Elfu

Berhane Elfu,
Ph.D. Candidate,
Dept. of Educational Administration

University of Alberta
Edmonton
Canada T6G 2G5

Department of Educational Administration
Faculty of Education
7-104 Education Building North, Telephone (403) 432-5241

October 16, 1990

Dear Professor:

On October 1, 1990 I mailed to you a questionnaire that deals with the effectiveness of academic departments. If you have already completed the questionnaire, I thank you very much.

If you have not already done so, I would be most grateful if you would take the time to complete and forward the questionnaire to me before October 25, 1990. The results of this study will be reported in aggregate to assure anonymity to individual respondents.

Please contact me at 492-3094 if you need another copy of the questionnaire and/or return envelope. Your assistance in this matter is greatly appreciated.

Yours sincerely,

Berhane Elfu, M.Sc., M.B.A.
Ph.D. Candidate,
Dept. of Educational Administration

University of Alberta
Edmonton
Canada T6G 2G5

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